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ABSTRACT

To improve vocational rehabilitation programs for schizophrenic persons, a project sought to design an effective assessment strategy. Inactive records of schizophrenic clients at New Jersey sheltered workshops were examined to determine validity and reliability of assessment instruments being used. General Aptitude Test Battery (GATB) profiles of schizophrenic clients were collected to establish norms and determine GATB validity and reliability. Vocational assessment interviews were conducted with continuing care clients and schizophrenic patients using the Career Maturity Inventory (CMI), Rosenberg Self-Esteem Scale (RSE), Strong Campbell Interest Inventory (SCII), Differential Aptitude Test (DAT), three motivational measures, SCL-90, Individual Client Inventory, Katz Social Adjustment Scale (SKAS), and Vocational History Questionnaire (VHQ). An unstandardized questionnaire (VHQ) was found to reliably and validly measure interests and aptitudes, surpassing SCII. Traditional vocational assessment strategies were not reliable or valid. Reliability of DAT, RSE, and CMI could not be established. KSAS and Work Related Activities Scales had excellent predictive validity as measures of work readiness and rehabilitation potential. Although reliable, SCL-90 was not related to current employment status. CMI scales and biographical data failed to predict employment status. (Appendixes include assessment instruments and a sample-completed vocational assessment.) (Author/YLB)

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FINAL REPORT
OF THE
VOCATIONAL ASSESSMENT PROJECT

1979-80

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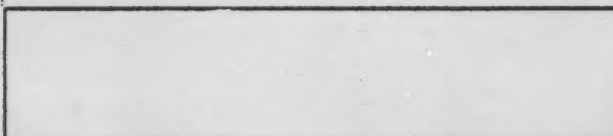
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(Area Code)ABSTRACT

DESCRIPTION OF PROJECT

(Use this sheet and no more than one other to type in single-spaced form a statement of project objectives, procedures to be followed, state and local priorities emphasized and the expected contribution of the project to vocational education.)

Past failures to vocationally educate and rehabilitate schizophrenic persons are reported in much of the current research. While it is clear that vocational education and rehabilitation programs have a great deal of difficulty achieving their objectives, the reasons for this lack of success are unclear. Developing adequate vocational assessment techniques is basic to both program development and evaluation. The main goal of the Vocational Assessment Project was to improve vocational rehabilitation programs for schizophrenic persons by designing an effective assessment strategy. A reliable and valid assessment technology makes it possible to determine which variables are significant in the education/rehabilitation process and contributes to a greater understanding of the vocational development of the psychiatrically disabled.

The archival study of the Vocational Assessment Project examined the inactive records of 120 schizophrenic clients at two sheltered workshops in New Jersey. Records were reviewed in order to determine the validity and reliability of the assessment instruments being used. General Aptitude Test Battery (GATB) profiles of 91 schizophrenic clients were also collected to establish norms and determine the validity and reliability of GATB scores. Vocational assessment interviews were conducted with 89 continuing care clients at the Community Mental Health Center of Rutgers Medical School and 32 schizophrenic patients at Marlboro Psychiatric Hospital. Modified procedures of test administration were developed to minimize

the cognitive difficulties characteristic of schizophrenic persons which often interfere with effective testing. The average length of a single interview was estimated to be four to five hours over several days. The instruments used in the interview study included: the Career Maturity Inventory (CMI), the Rosenberg Self-Esteem Scale (RSE), the Strong Campbell Interest Inventory (SCII), the Differential Aptitude Test (DAT - Abstract Reasoning), three motivational measures, the SCL-90, the Individual Client Inventory, the Katz Social Adjustment Scale and the Vocational History Questionnaire. A scoring system was developed for the Vocational Histories based on Holland's classification codes.

Several statistical techniques were used in the data analysis. The internal consistency of instruments was estimated by Kuder Richardson reliability coefficients. Multiple regression and discriminant function techniques were used to determine the value of the instruments in predicting rehabilitation outcome. Construct validity was determined by using factor analytic techniques and a multitrait-multimethod matrix.

One of the most significant findings of this study was that an unstandardized questionnaire could be used as a reliable and valid measure of the interests and aptitudes of schizophrenic clients. The discriminant validity of the Vocational History Questionnaire far surpassed that of the SCII. In general, traditional vocational assessment strategies were not found to be reliable or valid for schizophrenic clients. The reliability of the DAT, RSE, and CMI could not be established. The Katz Social Adjustment and the Work Related Activities scales were found to have excellent predictive validity and are thought to be valuable measures of work readiness and rehabilitation potential. Although the SCL-90 seemed reliable, it was not found to be related to current employment status. This suggests that a high symptom level alone does not prohibit employment. The mean scores of schizophrenic subjects on the SCII occupational themes were very similar to those of the general population. However, different standard deviations and high inter-theme correlations suggest that although the mean scores are similar, the interest patterns of the two groups are different. The data suggests that schizophrenic clients tend to have flat SCII profiles which are not useful in identifying occupational interests. CMI scales and biographical data failed to predict employment status. The only GATB subpart which was a significant predictor of employment was Assembly. High intercorrelations of GATB aptitude factors suggest that there is an underlying factor which influences the performance of schizophrenic clients on all parts. High levels of anxiety or low motivational levels are possible explanations for this finding. GATB factor scores indicate that the highest aptitude factor for schizophrenic clients was clerical perception and the lowest were finger and manual dexterity. The highest Vocational History interest themes were social, realistic and artistic. If GATB estimations of aptitude are accurate, there are major conflicts between aptitudes and interests for schizophrenic persons. It seems that they have high interest in realistic occupations, but poor dexterity to perform in them; and relatively low interest in conventional occupations, but relatively good clerical skills.

An archival study at two sheltered workshops demonstrated that most assessment techniques were used so infrequently that it was impossible to determine their reliability and validity. The low frequency of scale use also made it almost impossible to use the information they generated for program development and evaluation.

Modifications in test administration were proposed to minimize the effects of cognitive disorders on assessment. Recommendations were made to implement the findings of the Vocational Assessment Project.

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The scoring system for the vocational history questionnaire was devised in collaboration with the vocational research seminar clars of Rutgers Graduate School of Education. We wish to thank all the graduate students who were involved in this process. Their ideas were very useful in the development of these assessment procedures.

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A. INTRODUCTION

An epidemiology study conducted by the National Health Education Committee in 1971 reported that 20,000,000 people in the United States suffer from disabling mental and emotional disorders. The incidence of psychiatric disabilities ranked second to cardiovascular disorders as the disabling condition affecting most people in this country. More of this number are living in the community as a result of the recent trend toward deinstitutionalization. The chronically mentally ill have left hospitals and are struggling with the transition to independent community life. Since the mentally disabled are the second largest disability group and many have recently been deinstitutionalized, the need for effective outpatient rehabilitation services is evident.

The Rehabilitation Act of 1973 lists as its first purpose the development of plans for providing vocational rehabilitation services to disabled persons so that they may "prepare for and engage in gainful employment." Despite the vocational rehabilitation efforts of the past twenty years, reports in the literature have shown that half to two-thirds of discharged chronic mental patients remain unemployed (Evje, 1972). In the mid 1960's one of the most comprehensive studies of the vocational rehabilitation of the mentally ill patient was done by the research unit of the Veterans Administration. They questioned 3,609 schizophrenic patients under sixty years of age who had been released from hospitals six months earlier. Two-thirds reported themselves as working one month or less, and only 14 percent reported themselves as working five months or more. (VA, 1965) These findings seem to indicate that either serious efforts to vocationally rehabilitate schizophrenic patients were not being made, or that they were not very successful. Griffiths (1974) investigated the effects of rehabilitation by randomly assigning 56 schizophrenic subjects to experimental and control groups. After 15 months, assessments revealed no significant differences between those who had participated in the vocational rehabilitation program and those who had not. The overall conclusion was that rehabilitation had no detectable effect.

The results of this extensive Veterans Administration study (1965) and Griffiths' (1974) experimental investigation, typify the failure to vocationally educate and rehabilitate schizophrenic persons which is reported in much of the current research (Berkowitz, et al., 1976). While it is clear that vocational education/rehabilitation programs have a great deal of difficulty achieving their objectives, the reasons for this lack of success are unclear. Perhaps schizophrenic persons are poor risks for vocational education/rehabilitation, or perhaps present programs are not effectively meeting their needs. The former position is untenable, since it implies a fatalistic stance that inhibits further research. Past failures to vocationally educate and rehabilitate schizophrenic persons underscore the need to develop new programs and test new approaches to this difficult problem.

Vocational education/rehabilitation programs have two main components. An assessment phase determines what interventions are appropriate in the education phase. Efforts to improve education/rehabilitation outcome have traditionally focused on changing aspects of education. Since assessment determines education, it is necessary to question the adequacy of vocational assessment before attempting to develop an educational plan. Developing adequate

vocational assessment techniques is basic to both program development and evaluation. Valid and reliable vocational instrumentation is essential in order to understand the education/rehabilitation process, and the individual vocational development of schizophrenic persons. This critical focus on a comprehensive assessment phase is lacking in previous vocational education/rehabilitation research.

Sankovsky (1970) defined vocational assessment as a five part process: (1) establishing criteria and vocational goals; (2) collecting information regarding vocational potential; (3) analyzing information regarding vocational potential; (4) decision-making on potential vocational goals and predicting outcome; (5) determining the effectiveness of the evaluation process by feedback obtained through follow-up. While this definition of vocational assessment seems appropriate for normal and schizophrenic subjects, there is little evidence that vocational testing can be used in the same ways for both groups. It seems likely that an individual whose general mode of behavior is so different would also be likely to respond to an interest inventory or aptitude test in a different fashion (Brandt, 1968).

In formulating a vocational assessment strategy to be used with schizophrenic patients, there are three aspects of the problem to consider and their respective criteria for adequacy. (1) Are the variables being measured related to vocational development and success? The vocational theory developed by Super (1957, 1963, 1970) has been used to identify these variables and provide a dynamic framework to explore relationships among variables, and their subsequent role in vocational education. (2) What are the best measures of the variables which have been identified as theoretically important? This is basically a psychometric question which has been explored in previous validity and reliability studies using normal populations. (3) Do the vocational instruments which have been found to be reliable and valid for normal populations, yield reliable and valid results for a schizophrenic population? Since this is the central question of this project, it has been investigated in several ways. First, vocational assessment programs which are presently employed with schizophrenic persons have been evaluated using data available from vocational records. Second, vocational instruments which have been found to be reliable, valid and relevant (based on vocational theory) in normal populations, have been empirically tested to determine if they are reliable, valid and relevant for a schizophrenic population. Third, previous research and pilot project experience have suggested modifications in test administration, content and interpretation which should enhance test validity and reliability with schizophrenic persons.

The main goal of the Vocational Assessment Project (SREG-808) is to improve vocational rehabilitation programs for schizophrenic persons by designing an effective assessment phase. Adequate assessment technology makes it possible to determine which variables are significant in the education/rehabilitation process, and contributes to a greater understanding of the vocational development of schizophrenics. This will result in a firmer basis for the development and evaluation of vocational education/rehabilitation programs for schizophrenic persons.

Vocational Theory

Prior to the late 1950's, vocational psychologists emphasized matching men and women to occupations. The analysis of personal and occupational aptitude and interest profiles became a very important part of a rather static matching process which seemed incompatible with dynamic concepts of personality development.

Super (1951) linked personality development and vocational choice in his theory of vocational development. Super (1963) states, "In expressing a vocational preference, a person puts into occupational terminology his idea of the kind of person he is; that in entering an occupation, he seeks to implement a concept of himself; that in getting established in an occupation he achieves self actualization. The occupation thus makes possible the playing of a role appropriate to the self-concept." (p.1)

Super's vocational theory also recognized the developmental nature of career decision-making, and Super postulated life stages and the tasks of vocational development appropriate to each stage. Applying the theory of life stages to the analysis of vocational exploration and establishment, Super (1953) introduced the concept of career maturity. According to Super (1957), vocational maturation proceeds along five dimensions:

(1) Orientation to Vocational Choice; (2) Information and Planning; (3) Consistency of Vocational Choice; (4) Crystallization of Traits; and (5) Wisdom of Vocational Preferences. Career maturity is defined as one's standing along these dimensions in relation to either chronological age and expected life stage, or the behavior of others with the same developmental tasks.

Empirical testing of Super's theory has demonstrated that agreement between the self concept and one's own occupational concept is related to occupational preferences and to both internal and external criteria of success and satisfaction (Super, 1963).

Super's theory provides the conceptual framework for the Vocational Assessment Project. Career maturity and self esteem are two of the most powerful variables in vocational development according to Super's formulation. Aptitudes and interests are of secondary importance and are mainly seen as contributing to the concept of self. Motivation and biographical data have been found to be important variables in prior research concerned with the vocational education/rehabilitation of schizophrenic persons. The following will examine each of these variables in a systematic attempt to relate vocational theory and prior research to the purposes of this project.

Career Maturity

The career development processes have been described in detail by Super (1957, 1963, 1970), Jordaan (1963, 1974), Crites (1967, 1969, 1974) and others. In general they see career development as part of human development (Beilin, 1955; Crites et al, 1967). As Tennyson et al. (1973) note:

"Individual development is influenced by both heredity and environment. Psychological, sociological, educational, political, economic and physical factors effect development." (p. 3) It is not known to what extent and in which ways schizophrenia effects the career development process. There seems to be a lack of meaningful research in this area. The Career Maturity Inventory (Crites, 1965) has been used to further understand the career development process and as a tool to assess individual vocational counseling needs and educational needs.

The Career Maturity Inventory (CMI) was developed by Crites (1965) to assess two important career development group factors involved in career maturity. The CMI has been conceived and constructed to measure the maturity of attitudes and competencies that are critical in realistic career decision making. It is made up of two scales, an Attitude Scale and a Competence Scale. The five attitudinal clusters surveyed are: (1) involvement in the career choice process; (2) orientation toward work; (3) independence in decision making; (4) preference for career choice factors and (5) conceptions of the career choice process. The Competence Test measures the more cognitive variables involved in choosing an occupation. These include: how well the individual can appraise his/her job-related capabilities; how much he/she knows about the world of work; how adept he/she is at matching personal characteristics with occupational requirements; how foresightful he/she is in planning for a career; and how effectively he/she can cope with the problems which arise in the course of career development. There are five parts to the Competence Test: Self-Appraisal, Occupational Information, Goal Selection, Planning and Problem Solving. (See Appendix I.)

If the career immaturity of schizophrenic persons can be understood using the CMI, then appropriate steps can be taken to enhance career attitude maturity (Asbury, 1967; Bovee, 1967; Gilliland, 1966; Goodson, 1969) and provide career education programs (Herr and Cramer, 1972) that will teach needed career competencies. The CMI seems to have a great deal of potential as a research and counseling tool in understanding the career development of schizophrenic persons.

The CMI may also be useful in the measurement of education/rehabilitation potential. Since the CMI measures the attitudes and competencies that are critical in realistic career decision making, scores on the CMI should also be related to successful work adjustment. By definition, education/rehabilitation potential involves the prediction of future work success and this should be reflected to some extent in CMI scores.

Searls, et al. (1969) attempted to identify the variables that were incompatible with the vocational success of former psychiatric patients. He found that the unemployable patients had vocational goals that were too narrow and unrealistic. This seems to support the use of the CMI as one measure of employability and education/rehabilitation potential.

The Vocational Assessment Project has used the CMI in three ways: (1) to understand the career development process of schizophrenics, (2) to assess individual vocational counseling and education needs, and (3) to investigate its usefulness as a measure of education/rehabilitation potential.

Self Esteem

Super (1963 a,b,c) sees vocational choice as implementation of self-concepts. He identified self-esteem as an important metadimension of self-concept and a primary motivator of vocational behavior. Rosenberg (1965) defined self-esteem as the individual's evaluation of the self with regard to some characteristic. Gergen (1971) states that a person's self-esteem plays a key role in determining his behavior. Korman (1966) found self-esteem to be a moderating variable in the process of vocational choice. He concluded that individuals high in self-esteem are more likely than individuals low in self-esteem to choose occupations congruent or consistent with their self-concepts.

Little is known about how self-esteem affects the vocational choices of schizophrenic persons. Patterson's (1957) finding that the vocational aspirations of the emotionally disturbed tend to be unrealistic could be the result of self-esteem acting as a moderating variable as Korman has suggested. Self-esteem is also an important motivator of vocational behavior and this needs to be explored in relation to the vocational problems of schizophrenic persons. If research can firmly establish the importance of self-esteem in the vocational development of schizophrenic patients, ways can be explored to increase self-esteem through social approval and demonstrated competencies.

Self-esteem has been used by Griffiths (1974), and Watts, et al. (1976) to predict education/rehabilitation outcome. Griffiths found low self-esteem to be one of the predictors invariably associated with unemployment. Watts suggests that self-esteem is a powerful measure of the education/rehabilitation potential of psychiatric patients. This study focused on self-esteem as another measure of the education/rehabilitation potential of schizophrenic persons.

The Rosenberg Self-Esteem Scale (RSE) is a Guttman Scale composed of ten items used to measure global self-esteem. (See Appendix I.) The Rosenberg Scale is easily administered in a short time. Scores range from 0 (high self-esteem) to 6 (low self-esteem). Validity and reliability of the RSE Scale are impressive (Wylie, 1974). The Rosenberg Self-Esteem Scale has been used in conjunction with the CMI and other vocational instruments, to explore the role of self-esteem in the vocational development of schizophrenic persons, and to measure education/rehabilitation potential.

Motivation

In order to take into account the environmental factors which affect motivation, it is useful to redefine motivation in terms of Bandura's (1977) construct of self-efficacy. Both environmental and personal characteristics contribute to a person's perception of self-efficacy. This redefinition is important in conceptualizing the vocational motivation of the disabled. It explains how failure to perform successfully in the past, and/or obtain the desired outcomes, results in lowered expectations of capacity to function in the future. The schizophrenic patient often has a work history of frustration and failure. This can make him reluctant to face the prospects of employment, and he seems

to lack the drive to deal with the placement process or other aspects of vocational rehabilitation.

"Professional patienthood" can also result in motivational problems. Often the schizophrenic patient concludes that the rewards of working are not worth the risk of failure. The patient often sees the likelihood of getting and functioning in a rewarding job as remote. It is easier just to be a patient and collect disability benefits. Many schizophrenics are reluctant to take part in the vocational rehabilitation process because they are afraid of losing disability benefits. (Gunn, 1975)

Searls et al. (1970) identified motivation as an important variable in predicting employment failure among psychiatric patients in a rehabilitation program. Searls used four factors to measure motivation: (1) misses appointments for placement or vocational counseling; (2) usually late for placement or vocational counseling; (3) resistance or refusal to accept job referrals; and (4) procrastination on follow-up job leads. Motivation was also found to be significant in differentiating employed and unemployed psychotic patients in a vocational rehabilitation program. (Griffiths, 1974) These studies indicate that a patient's willingness to engage in the vocational education/rehabilitation process (motivation or perceived self-efficacy) is related to education/rehabilitation outcome and should be useful in measuring the education/rehabilitation potential of schizophrenic persons.

The Vocational Assessment Project has developed three measures of motivation: A self-report scale measured the number and frequency of a client's vocational activities during the past six months. In another measure, clients were directed to visualize the barriers to work as a stone wall standing in front of them. They were asked: How high is the wall? Can you get over it alone? Can you get over it with help? This was an attempt to operationalize Bandura's concept of self-efficacy. The third motivational measure took disability benefits and work values into account. It was assumed that if clients saw work as important for reasons other than its financial rewards, they would be more likely to work than collect disability benefits. This measure was called "Attitudes About Myself and Work." (See Appendix I.)

In addition to developing effective measures of the motivation of schizophrenic persons to engage in the vocational education/rehabilitation process, the Vocational Assessment Project used these measures to understand the role of motivation in the vocational development of schizophrenic clients, and to determine the value of motivation as a variable measuring education/rehabilitation potential.

Aptitudes

Taylor (1963) tested 57 patients (47 of whom were schizophrenic) using the General Aptitude Test Battery (GATB). One year later, he found that the battery did not predict which patients made successful work adjustments. He

states that although the GATB is widely used in vocational assessment, it appears that it is unable to predict work adjustment among former psychiatric patients. Bidwell (1969) found a negative relationship between the GATB and the Stotsky-Weinberg Sentence Completion Test in a study of 51 male schizophrenic persons. The low ego-strength subjects performed better on the aptitude tests for general intelligence, verbal, numerical, spatial relations, perceptual, clerical skill and motor coordination. The high ego-strength subjects performed better in only two areas, finger and manual dexterity. Bidwell (1969) suggests that impression management of higher functioning schizophrenic persons as a possible explanation of her unexpected findings. While it is difficult to understand her results, they seem to indicate that the use of the GATB to predict the readiness of schizophrenic persons for vocational counseling or planning is inappropriate. Briggs (1966) found that it was appropriate to use four factors of the GATB to distinguish between psychiatric patients (diagnosis unspecified) that were vocationally successful and those that were not. One possible explanation for these conflicting findings is that Briggs tested his patients after they had been discharged from the hospital, while the studies cited previously administered the GATB to hospitalized patients. Presumably, the discharged patients were experiencing less symptoms when they took the test and, therefore, GATB results had more predictive value. Another reason may be that the previous studies used all or mostly schizophrenic subjects. Briggs (1966) used a more heterogeneous patient sample, therefore, his findings may not be generalizable to a schizophrenic population.

Floyd (1964) compares the performance of 10 hospitalized mental patients (diagnosis unspecified) on various aptitude and intelligence tests. He found large discrepancies between the Peabody Picture Vocabulary Tests (PPVT) and the "G" (general intelligence) and the "V" (verbal ability) factors of the GATB. The PPVT was designed for the mentally and physically handicapped which may account for the tendency of PPVT IQ scores to be higher than the "V" and "G" Factor scores on the GATB. There was also a tendency for the WAIS full scale IQ to be higher than the "G" Factor of the GATB. These findings are based on a very small sample; however, they point to the need for further validation of the GATB using a schizophrenic population.

Roberts (1970) claims that rehabilitation clients infrequently score high enough to meet the required occupational patterns on the GATB and other aptitude tests, since they were standardized on a normal population. He suggests that the raw scores of aptitude tests are still helpful in the counseling and education/rehabilitation processes, since they reflect the clients relative strengths and weaknesses. This assumes that the schizophrenic patient is motivated to do his/her best on the test, and that other aspects of mental illness are not interfering with accurate aptitude assessment. The present research has attempted to determine if aptitude tests can be used effectively with schizophrenic persons to assess relative vocational abilities.

The GATB also poses other problems which are not unique to its use with a schizophrenic population. Blum (1975) cites the following problems in his review of the GATB: (1) norms are inadequate for nationwide testing; (2) the basis for the Occupational Aptitude Patterns are unclear and uncertain;

(3) availability of reliability evidence is inadequate; and (4) considerable evidence is needed on the validation process both with respect to occupational groups and with respect to the use of the battery as a counseling instrument. Blum (1974) maintains that the GATB needs so much work to be done that it should be considered in an experimental stage even when used with a general population.

The Vocational Assessment Project has studied the performance of schizophrenic clients on the GATB. The major objectives of this research have been to establish the validity and reliability of the GATB for schizophrenic clients, to establish schizophrenic norms, and to compare scale differences between schizophrenic clients and normals, and among schizophrenic subtypes.

The Differential Aptitude Tests (DAT) are very similar in purpose and construction to the GATB. However, Blum (1976) states that the GATB compares unfavorably with the DAT. He contends that, "The manual for the Differential Aptitude Tests is a masterpiece in comparison with the floundering and incomplete GATB material." (1975, p.318) Reviewers have dubbed the DAT as "the best available instrument of its kind." (Quereshi, 1975, p. 819) Bechtoedt (1975) commends the DAT because it has been carefully developed and standardized by authors who have done an exceptional job in making information about the tests available to the public (p. 312). He further states that the tests seem valid in predicting educational and vocational success. Humphreys (1975) maintains that the norms for the DAT are far better than those available for most tests. In his review of the DAT, Frederikson (1975) concludes that, "The tests are technically a very high quality, and there is ample evidence that they can be usefully employed in a wide variety of educational selection, placement and guidance areas (p. 479)."

There is very little information available concerning the use of the DAT with schizophrenics. Barry (1966) used the Abstract Reasoning Test of the DAT with 100 hospitalized psychiatric patients (34% of whom were schizophrenic). He found that the Abstract Reasoning Test correlated most consistently of all the capacity measures he tested with three major criteria: severity of initial illness, amount of improvement, and length of hospitalization. Barry (1966) concluded that the Abstract Reasoning Test of the DAT was a good predictor of final adjustment. These results encourage further exploration of the DAT as a valuable tool in predicting when a schizophrenic patient is ready for vocational counseling, planning or employment. The Vocational Assessment Project has attempted to establish the validity and reliability of the DAT with a schizophrenic population.

Interests

The effectiveness of interest inventories with schizophrenic persons has been questioned by many investigators. Brandt (1968) found that the Strong Vocational Interest Blank (SVIB) predicted eventual occupation less accurately for persons who obtained abnormal profiles on the MMPI than for those with normal profiles. He concluded that the SVIB can be used with less confidence when counseling individuals with abnormal scores. He attributes

this to differences between abnormal scores and the original normative group used for standardization of the SVIB. Patterson (1957) states that, "The evidence seems to indicate that emotionally disturbed clients do tend to present patterns of vocational interest which are different from those of normal persons in tending to be more unrealistic in terms of aptitude and ability requirements, and in terms of more often reflecting interest in talent and personal-social occupations." (p. 274) Cares (1964) used the SVIB with 40 hospitalized psychiatric patients (36 of whom were schizophrenic) and found that greater abnormality was associated with less interest patterning, vocational immaturity, greater variability of responses, response deviance, and the tendency for primary interests in creative-expression fields and detailed office work.

In a study of 81 hospitalized psychiatric patients, Duncanson (1964) found that the degree of response measured by the absolute difference between frequency of items marked "like" and "dislike" on the SVIB was significantly related to the duration of subsequent hospitalization. This would seem to indicate that patients with strong response sets on the SVIB would have a low level of general adjustment and vocational readiness.

Fein (1963) suggests several ways that the SVIB might be used more productively with schizophrenic persons. He compared the SVIB profiles of 60 normals and 60 schizophrenics whose psychotic symptoms were in sufficient remission to allow for adequate test administration. Each profile met the criterion of possessing at least one primary or reject interest pattern. The only significant difference he found between the two groups was that schizophrenic persons tend to have a greater preference for skilled labor and business details, whereas the controls had a greater preference for selling and linguistic occupations. Fein (1963) maintains that "the results of the present study imply that, once strong likes or dislikes are established, they are relatively stable. When symptoms of a severe mental illness, such as schizophrenia, are in remission, likes and dislikes are not altered sufficiently that they significantly differ from those of control subjects." (p. 893) This study concludes that the SVIB can be helpful in the vocational counseling of schizophrenic patients and in making hospital work assignments.

Research using the SVIB with schizophrenic persons has produced some conflicting findings and has raised many questions. The Vocational Assessment Project has examined some of these questions and conflicts using the Strong Campbell Interest Inventory (SCII - See Appendix I.): (1) Can modification in administration make the SCII more valid and reliable for schizophrenic persons? (2) Is the SCII more valid for schizophrenic persons when only profiles possessing at least one primary or reject interest pattern are used? (3) Are the interest patterns of schizophrenic clients significantly different from normals? (4) Many schizophrenic persons are interested in creative-expression occupations where employment prospects are poor. How are occupational preferences related to employment status? Are those who are interested in occupations with good employment outlooks more likely to be working than those who are interested in occupations where job prospects are poor? The interest research of the Vocational Assessment Project addressed these questions.

Biographical Data

In his comments on the use of past history in the vocational education/rehabilitation of the mentally ill, Gunn (1975) maintains that a review of past accomplishments and preferences can serve as a basis for determining the future course of vocational education/rehabilitation and job placement. Gunn states, "it is safe to say that a simple, uncomplicated predictor of future accomplishment is what has happened in the past." (p. 213)

Lorei and Gurel (1972) were able to predict employment status and hospital readmission of 720 schizophrenic patients using a self-administered historical inventory. These results support the use of historical data in measuring education/rehabilitation potential, and as a way of determining appropriate interventions in the vocational education/counseling of schizophrenic patients.

The Vocational Assessment Project used a vocational history questionnaire (See Appendix I.) which focused on four areas: educational history, work history, leisure time activities and home/family activities. The Individual Client Inventory (See Appendix I.) gathered other relevant biographical information. These questionnaires have been used to determine: (1) What specific biographical information has relevance in facilitating the vocational development of schizophrenic persons? (2) Can certain biographical data be used to measure the education/rehabilitation potential of schizophrenic persons? If so, which biographical data has the greatest predictive value? (3) Can vocational interests, as expressed on the vocational history, be used to establish the construct validity of the SCII? (4) Is vocational success or failure related to the history of mental illness or its treatment?

Disability

81% of the subjects in the vocational assessment research had a current diagnosis of schizophrenia. (The remainder were chronically mentally ill and most had been diagnosed as manic depressive or borderline.) Schizophrenia is a generic term which includes various subtypes with different characteristics. "The essential features of this group of disorders are: disorganization of a previous level of functioning; characteristic symptoms involving multiple psychological processes; the presence of certain psychotic features during the active phase of the illness; the absence of a full affective syndrome concurrent with or developing prior to the active phase of the illness; a tendency towards chronicity; and the disturbance is not explainable by any of the Organic Mental Disorders." (Diagnostic and Statistical Manual of Mental Disorders, Third Edition) According to this definition, a schizophrenic disorder always involves delusions, hallucinations or certain thought disturbances during some phase of the illness.

The Vocational Assessment Project has examined different aspects of the schizophrenic process in order to determine how they interfere with vocational assessment and rehabilitation. Modifications in test administration were developed in order to minimize the extent to which schizophrenic thought disorders inhibited valid and reliable vocational assessments. This study also attempted to understand the role of psychiatric disabilities in vocational rehabilitation.

Two measures were used to assess psychiatric disability: the SCL-90 and the Katz Social Adjustment Scale. (See Appendix I.) The SCL-90 is a 90-item self-report symptom inventory developed by the Johns Hopkins Clinical Psychometrics Research Unit, and designed to primarily reflect the psychological symptom patterns of psychiatric and medical patients. The Katz Social Adjustment Scale (Katz & Lyerly, 1963) was developed in association with the Hopkins Symptom Check List (HSCL) which was a forerunner of the SCL-90. This instrument was designed to assess those aspects of psychiatric/rehabilitation functioning which did not fall within the traditional notion of psychiatric symptoms. The Katz scale is designed to measure those aspects of activities of daily living which are presumed, by Katz and his associates, to be necessary for functioning in a "normal" adult world. The specific aspects of the Katz scales which have been adopted for this project are the measures of daily living and leisure functioning.

These measures of disability have been used to address the following questions: (1) Are those subjects with lower symptom levels more likely to be working, than those who are more symptomatic? (2) Do certain psychiatric symptoms impair a person's ability to work more than others? (3) Is a person's level of social functioning related to his ability to function at work?

Pilot Projects

Besides reviewing the relevant literature and theory, several implications have been drawn from two pilot projects conducted during 1978-1979. The Program Planning and Evaluation Unit of Rutgers Community Mental Health Center (RCMHC) collaborated with the Educational Psychology Program of Rutgers Graduate School of Education on a vocational assessment project for the continuing care population. The purpose of the project was to identify some of the problems associated with vocational assessment of the continuing care population and recommend more effective measurement strategies.

The pilot testing used the SCL-90, RSE, CMI, SCII, the Katz Patient Report of Behavior and Social Adjustment Scale, and a life history questionnaire (biographical data) with 15 schizophrenic patients from the continuing care population at the CMHC - RMS.

There were three findings which are relevant to the present research. (1) Persons who were supported by disability benefits (S.S.I.) were unwilling to consider vocational assessment as a service because they feared that efforts toward vocational education/rehabilitation would jeopardize their S.S.I. standing. This suggests that feared loss of disability benefits can create a serious motivational problem which must be considered. (2) Data contained in the medical records of 40 patients studied were judged to be inadequate to supplement vocational assessment and provide an information base for education/counseling. This suggests that efforts should be made to include clinicians in the vocational development process. (3) Severely impaired persons can complete standardized vocational instruments when they are administered individually with modifications. Some of the problems and modifications which are relevant to this study are: (a) The effects of medication caused visual problems which prevented one patient from reading

the questions. Some questions had to be read to him and his answers were recorded by the testor. (b) The effects of anxiety occasionally interrupted testing and a less threatening topic was discussed. Testing was resumed during that session or a subsequent session was scheduled. (c) Thought distortions sometimes interfered with appropriate interpretation of questions. This required constant monitoring of question interpretation and answers on the part of the testor. (d) Motivation to complete the testing was a problem with one patient who was leaving the treatment program. He was attempting to answer questions without reading them. Test-taking motivation was not a problem with the other patients once a good rapport had been established. (e) One patient had difficulty reading the test material (most are written at about the sixth grade level). It took her longer to complete the test battery and some of the questions had to be read to her or explained in simpler language.

These findings are based on a very small sample. The Vocational Assessment Project used a much larger sample (N=121) to explore ways to include clinicians in the education/rehabilitation process and minimize the negative effects of feared loss of disability benefits, medication, anxiety, thought distortions, lack of test-taking motivation and a low reading level on the vocational assessment of schizophrenic persons.

Summary

Both Super's vocational theory and prior research suggest that career maturity and self esteem are important variables in the vocational education/rehabilitation process. However, the instruments used to measure these variables (CMI, RSE) have not been used with schizophrenic persons. The CMI and RSE have been used with a schizophrenic population in order to determine their reliability, validity and value in predicting education/rehabilitation outcome.

A review of the literature suggests that motivation to engage in the education/rehabilitation process (or perceived self-efficacy) is also important to assess. Various assessment strategies have been explored to operationalize this construct in a way that is effective and has predictive value. The literature also suggests that biographical data can be very useful in predicting education/rehabilitation outcome. A vocational/educational history seems to have face validity and has been tested with schizophrenic persons to determine whether it is reliable and valid in other respects.

Prior research measuring aptitudes and interests with schizophrenic persons have encountered serious problems which cast doubt on their reliable and valid use with this population. However, both prior research and pilot testing suggest certain modifications which could significantly improve reliability and validity. For instance, individual administration of the GATB/DAT or SCII when psychotic symptoms are in remission could substantially enhance their reliability and validity. Modifications in administration and interpretation have been developed in a systematic way with a schizophrenic population in order to determine if these instruments are useful with certain modifications.

This vocational assessment model has been used and tested with a schizophrenic population. However, further research may show that it is generalizable to other disabled populations as well.

B. PROCEDURES

Objectives

In the review of theory, literature and practice, certain variables have been identified as important in the career development of schizophrenic persons. These are: career maturity, self-esteem, motivation, aptitudes, interests, biographical data and disability. All of these variables have been operationalized and validated for normal populations but have not yet been validated with schizophrenic and chronically mentally ill populations. Concurrently, there are measures which have been developed to assess career development variables with schizophrenic persons which have not yet been evaluated as reliable and valid measures of the variables of interest. Therefore, the objectives of this study are as follows:

(1). To establish the reliability and validity of diagnostic and evaluative measures which have been used to assess the career development of schizophrenic clients.

Specifically, the most recent archival data for schizophrenic clients at Raritan Valley Workshop (N=60) and Hunterdon Occupational Training Center (N=60) has been analyzed to determine the reliability and validity of assessment measures. Additional archival data has been gathered as needed to supplement these two data sets. Reliability has been estimated by coefficient alpha. Multiple regression and discriminant function techniques have been used to estimate the predictive validity of these instruments.

(2). To develop procedures for administering measures originally developed for normal populations to a schizophrenic population and to assess the reliability and validity of these measures.

Specifically, schizophrenic clients at the Community Mental Health Center of Rutgers Medical School (N=89) and Marlboro Psychiatric Hospital (N=32) have been individually tested using modified procedures of test administration. The instruments used include: the Career Maturity Inventory, the Rosenberg Self-Esteem Scale, the Strong Campbell Interest Inventory, the Differential Aptitude Test (Abstract Reasoning), three motivational measures, the Vocational History, the SCL-90, the Individual Client Inventory and the Katz Social Adjustment Scale. (See Appendix I.) Reliability has been estimated using coefficient alpha. Multiple regression and discriminant function techniques have been used to estimate the predictive validity of these instruments. Construct validity has been determined by the multitrait-multimethod matrix developed by Campbell and Fiske (1959).

The significance of these objectives for vocational education/rehabilitation is as follows:

- (a) Reliable and valid vocational assessment of schizophrenic persons is necessary to plan for the vocational education of these persons and to evaluate vocational education programs for them.

- (b) Thorough and efficient guidelines mandate educational opportunity for all students in New Jersey. Schizophrenic students have special assessment needs that have not been evaluated relative to career development theory and/or psychometric procedures. This study is an important beginning in this direction.
- (c) Findings for this population will probably generalize to other populations who do not respond well to normal assessment techniques (e.g., persons with organic brain syndrome, learning disabilities and reading problems). Clearly, the generalizability of the findings await confirmation, but it is expected that the technology to achieve this evaluation will be relatively easy to accomplish once the results of the present study are known.
- (d) Reliable and valid vocational assessments provide an important data base for vocational decisions and help to eliminate sex bias and sex role stereotyping in the rehabilitation process.

Method

- (1). The most recent inactive files for schizophrenic clients at Raritan Valley Workshop (N=60) and Hunterdon Occupational Training Center (N=60) have been analyzed in order to determine which assessment instruments are being used. When the number of cases is sufficiently large, the measure has been examined in order to determine its reliability and validity.
- (2). GATB profiles of 100 schizophrenic clients from various sheltered workshops and rehabilitation programs have been reviewed to establish the reliability and validity of GATB factors for a schizophrenic population.
- (3). Vocational assessment interviews have been conducted with 89 continuing care clients at the CMHC of RMS and 32 schizophrenic patients at Marlboro Psychiatric Hospital (N=121). The average length of a single interview was estimated to be four to five hours over several days. Modified procedures were used in test administration and these are described in detail in a subsequent section.

Samples

The study consisted of several samples which were selected in various ways. At Raritan Valley Workshop, the inactive file contained the records of 60 schizophrenic clients who had attended the workshop during the past eight years. All 60 cases were included in this sample. Since the number of inactive schizophrenic clients was much larger at Hunterdon Occupational Training Center, a sample of 60 was selected from the most recently closed cases. These included all the schizophrenic clients who had attended the

workshop over the past two and a half years. It was anticipated that by restricting the time frame, records would be more consistent in the type of instrumentation utilized. Clients for the interview study were either self-selected or referred by the staffs of Marlboro Psychiatric Hospital or the CMHC of RMS. Although a current diagnosis of schizophrenia was required, on the re-examination of subject records, it was determined by the project director that 81% of the clients in the interview study had a current diagnosis of schizophrenia and most of the remainder had been diagnosed as manic-depressive or borderline. GATB profiles were gathered from the files of Hunterdon Occupational Training Center, Raritan Bay Mental Health Center and Associated Craftsman. All available profiles of schizophrenic clients were used in the study.

Instrumentation

The archival study at Raritan Valley Workshop and Hunterdon Occupational Training Center included demographic data and those measures which were used frequently enough with schizophrenic clients to provide a sufficient number of cases for statistical analysis. (See Appendix II.) These included work performance ratings, staff evaluations and other standardized measures.

The interview study at the CMHC of RMS and Marlboro Psychiatric Hospital included: the Career Maturity Inventory, the Rosenberg Self-Esteem Scale, the Strong Campbell Interest Inventory, the Differential Aptitude Test (Abstract Reasoning), three motivational measures, the Vocational History, the SCL-90, the Individual Client Inventory and the Katz Social Adjustment Scale. Vocational Histories were scored using a system based on Holland's codes (1970). (See Appendix I.) A detailed description of these instruments can be found in the introduction to this report.

Analysis

Correlational analyses of the assessment instruments have been computed according to the standards established by Nunnally (1969) for assessing reliability and validity. Reliability has been estimated using coefficient alpha (Kuder Richardson reliability coefficient). Multiple regression techniques will be used to determine the value of the instruments in predicting rehabilitation outcome (predictive validity). The independent variables in these analyses are career maturity, self-esteem, motivation, interest, aptitude, disability and certain demographic variables. Employment status and length of employment were the dependent variables. Construct validity has been determined for the Vocational History and Strong Campbell Interest Inventory using the multitrait-multimethod matrix developed by Campbell and Fiske (1959).

C. FINDINGS

Modifications in Test Administration to Improve the Validity and Reliability of Vocational Assessments

Several cognitive disorders interfere with the valid and reliable vocational assessments of schizophrenics. The Vocational Assessment Project has developed modifications in test administration to circumvent these thought disorders and increase the validity and reliability of the assessment instruments. It is important to have an understanding of these cognitive disorders in order to develop specific modifications which address each disorder. By having a clear picture of each disorder, modifications can be devised to minimize many of the cognitive problems which may interfere with effective testing.

The following section identifies cognitive disorders which are characteristic of the schizophrenic clients interviewed during the Vocational Assessment Project. Descriptive examples of each thought disorder are based on actual interviews. Definitions are from the Diagnostic and Statistical Manual of Mental Disorders (Third Edition). Several interview strategies used to deal with these disorders will be addressed in subsequent sections.

Cognitive Disorders

The thought disorder of blocking occurs when there is an interruption of a train of speech before a thought or idea has been completed. Although the person's thought process continues, verbalization stops. Questioned by the interviewer, after the silence, clients usually state that they cannot remember what they meant to say.

In contrast to blocking where verbalization stops, circumstantiality involves the speaker bringing in tedious details and unnecessary explanatory remarks so that a pattern of speech develops which is indirect and delayed in reaching the point. The person talks around the issue and does not relate to the essence of the question. For example, on the Strong Campbell Interest Inventory in responding "Like", "Dislike" or "Indifferent" to repairing a clock, the client stated: "Repairing a clock. They used to have a big clock in grammar school. I was glad because people would measure their time on earth by this. A bummer. A clock has no control over your life. I wouldn't like repairing them." Here, the client talks about clocks in general before reaching the point of the question, does he like repairing them.

A failure to habituate indicates that the person cannot transfer what they have learned in the past to the present. Clients often experience difficulty adapting to a new situation and cannot sort out relevant information from one question and apply it to a new question. For instance, clients often could not remember from one session to the next how to darken the circles on the answer sheet of the Strong Campbell Interest Inventory and what the letters L, I, D represented. Clients often forgot definitions of occupations from one section of the Strong Campbell Interest Inventory to another and they also had difficulty retaining test instructions. These failures to habituate presented serious problems in test administration.

Whereas failure to habituate involves a person reacting to old situations as if they were new ones, perseveration occurs when a person reacts to new situations as if they were recent past ones. Perseveration usually involves a persistent repetition of words, ideas or subjects. A person who is perseverating will begin speaking about a particular subject or use a particular word and continually return to the subject or word in the process of speaking. During the Vocational Assessment Project clients often reacted to a new situation as if they were dealing with a recent past one. An example of this occurred when a client completed the Strong Campbell Interest Inventory and the following day began the Differential Aptitude Test - Abstract Reasoning. Instead of selecting the figure on the Abstract Reasoning Test which completes a logical sequence, the client would state "I marked that answer because I like that figure best." The client was selecting an answer on the new test (Differential Aptitude Test - Abstract Reasoning) based on directions to select an answer from the recent past test (Strong Campbell Interest Inventory). The client was clearly perseverating.

Often clients responded to interview questions with a flow of rapid speech with abrupt changes from topic to topic, most often based on related associations, distracting stimuli or a play on words. This is a common schizophrenic thought disorder called a flight of ideas. An example of this pattern of speech occurred when the interviewer asked: "What subjects do you remember taking in school?" The client responded: "God told me when I was a baby, 'Annon you leave now.' I was disgusted. I was going to write him a letter and ask if I could go back, but I don't think anything is in heaven. It's all here." In this example, the client exhibited an accelerated flow of related associations with abrupt changes from topic to topic.

Although similar to flight of ideas, loose associations are thought patterns characterized by spontaneous speech in which ideas shift from one subject to another that is completely unrelated or only obliquely related without the speaker's showing any awareness that the topics are unconnected. The term is generally not applied when abrupt shifts in topics are associated with a continuous flow of accelerated speech (as in flight of ideas). Loose associations were evident when the interviewer asked: "What home or family activities are you involved in at this time?" The client responded: "You know what? I can't ever remember in my childhood playing with toys. I like to look at babies. You can get one without sex, just put a letter underground from so and so to God. Maybe he'll send you one. I woke up one day and was in modeling school, but that hasn't happened in a while." In this example the client's thinking was characterized by speech in which ideas shifted from one subject to another. However, the speaker showed little awareness that these topics were unrelated.

Another cognitive disorder which is similar to both flight of ideas and loose associations is tangentiality. Tangential associations occur when a person's responses are not appropriate to the question asked. The reply may be related to the question in some distant way or seem totally unrelated to the question. The concept of tangentiality differs from flight of ideas and loose associations in that it refers only to answers to questions and not to transitions in spontaneous speech. An example of tangentiality occurred when the interviewer asked: "What

was it that you liked about the art course you took in school?" The client responded: "Making things pretty. I went to the graveyard to paint and was hit by a car there. As a kid, I could do grown-up paintings. I didn't eat for 20 years when I was a kid. My mother tried to feed me, but I kept falling asleep." In this example, the client answered with a reply which at the first seems to be tangentially related to the question. However, she drifted into a response which does not seem related to the question being asked.

Fragmentation is a thought disorder which occurs when the person experiences a flood of stimuli and is unable to organize their thoughts. There is a tendency to see parts rather than the whole. The minute specific details are emphasized at the expense of the main idea. People who fragment thought and perception are often described as those who cannot see the forest for the trees. Fragmentation often occurred during assessment interviews. Clients often used one word or phrase of a paragraph to decide on an answer. For instance, after reading a paragraph describing the career of a dancer, a client chose commercial artist as the correct answer. This was based on the word commercial. Commercial was the key word, despite the fact that it referred to television commercials and was not related to commercial art.

Overinclusion is a cognitive disorder occurring when the person responds to a question by including irrelevancies. The person's inability to organize thought and perception into relevant categories makes it difficult to sort out what is applicable to the question. For instance, overinclusion is evident when the interviewer asked: "What are your short term career goals?" The client responded: "I went to Drew University and majored in politics. I was given a post at Rutgers Mental Health Center as a counselor for 15 years, then I would be given something else. My income, social security payment for these services, and also a trust fund either from a business that I own or gifts from my grandfather. I'm not sure. It's about \$6,000 per year. It's not a lot of income, but for a beginner it's a decent entry level salary. I'm expecting a law suit of \$1,000,000 within the next 10 yrs. I want a public service career to help mental patients. . . ." In this illustration, the client includes many irrelevant details about finances in responding to a question about career goals.

In contrast to overinclusion, underinclusion represents the person's leaving out the relevant information needed to respond to a question. An example which depicts a client leaving out relevant information occurred when the interviewer asked: "Is this statement True or False? Once you choose a job, you can't choose another one?" The client responded "Kids today should get jobs. Parents may die, so jobs are important for money. Is that all right?" In this instance, the client failed to include the part of the question which involved choosing another job, and instead spoke about choosing jobs in general.

Modifications used in test administration

By having a clear understanding of the cognitive disorders of schizophrenic clients, we were able to develop modifications to minimize these problems. These modifications were designed to deal with the previously described cognitive disorders and maximize the validity and reliability of the assessments. (See Figure I.) Modifications in test administration which were devised and implemented during the Vocational Assessment Project are identified and defined in the following section.

1. Directions were repeated whenever necessary. The directions were either repeated by the interviewer or the client. This modification seemed to help clients organize their thoughts and to conceptualize the directions as a whole rather than the disjointed parts. It also helped clients who had trouble adapting to new situations (habituating) because they could not sort out relevant information and apply it to new questions.
2. The client was directed to read questions and/or answers aloud. This modification was used to enable the clients to organize their thoughts and to focus on the questions and/or answers. In addition, this modification helped the client to become more involved in the assessment process. This resulted in increased levels of interest and concentration.
3. Questions and answers were read aloud to the client by the interviewer. This modification was used with clients who were unable to read the items on the surveys and tests used in the Vocational Assessment Project. It was useful in assisting clients to focus on specific questions and answers, to organize their thoughts and it enabled them to make decisions about their answers. Concentration and interest were more easily maintained. In addition, reading the question and answers aloud provided the clients with auditory input rather than visual input alone.
4. The client was directed to re-read aloud the questions and/or answers.
5. The client was directed to re-read silently the questions and/or answers. These modifications helped clients to organize their thoughts, see the entire question and/or answer(s), rather than parts or fragments, and to focus on the item in question. Re-reading helped clients to return to the task if their thoughts were interrupted or they began spontaneous speech. Clients became more involved when they were actively reading or re-reading aloud. Re-reading aloud also provided the clients with auditory input.
6. The interviewer provided definitions of terms. This modification was especially useful in helping the client understand the nature of the work involved in the occupations listed on the Strong Campbell Interest Inventory. If the client lacked this occupational information, it was important to provide definitions so clients could decide whether they liked, disliked or were indifferent to the listed occupations. Definitions were also useful in differentiating terms such as interest and ability, and in describing symptoms on the SCL-90 (i.e., feeling blocked, feeling blue). It helped clients to organize their thoughts and relate their thoughts directly to the question.

Figure 1. Modifications in Test Administration Used to Circumvent Cognitive Disorders

COGNITIVE DISORDER	MODIFICATIONS IN ASSESSMENT ADMINISTRATION
1. Blocking	#2 - client directed to read questions/answers aloud #3 - questions/answers read aloud to client #4 - client directed to re-read aloud #5 - client directed to re-read silently #7 - questions/answers made more concrete with the use of examples #16 - frequently refocused on task
2. Circumstantiality	#1 - repeated directions whenever necessary #2 - client directed to read questions/answers aloud #3 - questions/answers read aloud to client #4 - client directed to re-read aloud #5 - client directed to re-read silently #7 - questions/answers made more concrete with the use of examples #8 - reinforcement of adaptive "test-taking" behavior #9 - client asked to explain reasoning from question to response and correct illogical thinking #11 - sorted out and excluded thinking unrelated to question and answer #12 - client asked to strengthen logical connections among thoughts #16 - frequently refocused on task #17 - questioned to make responses more specific
3. Failure to Habituate	#1 - repeated directions whenever necessary #6 - provided definition of terms #19 - directed to eliminate incorrect responses #20 - questioned infrequent response patterns and redirected
4. Perseveration	#1 - repeated directions whenever necessary #6 - provided definition of terms #19 - directed to eliminate incorrect responses #20 - questioned infrequent response patterns and redirected

COGNITIVE DISORDER

MODIFICATIONS IN ASSESSMENT ADMINISTRATION

5. Flight of Ideas

- #7 - questions/answers made more concrete with the use of examples
- #8 - reinforcement of adaptive "test-taking" behavior
- #9 - client asked to explain reasoning from question to response and correct illogical thinking
- #11 - sorted out and excluded thinking unrelated to question and answer
- #12 - client asked to strengthen logical connections among thoughts
- #14 - client asked to repeat or rephrase logical progression of thoughts
- #16 - frequently refocused on task

6. Loose Associations

- #7 - questions/answers made more concrete with the use of examples
- #8 - reinforcement of adaptive "test-taking" behavior
- #9 - client asked to explain reasoning from question to response and correct illogical thinking
- #11 - sorted out and excluded thinking unrelated to question and answer
- #12 - client asked to strengthen logical connections among thoughts
- #14 - client asked to repeat or rephrase logical progression of thoughts
- #16 - frequently refocused on task

7. Tangential Associations

- #7 - questions/answers made more concrete with the use of examples
- #8 - reinforcement of adaptive "test-taking" behavior
- #9 - client asked to explain reasoning from question to response and correct illogical thinking
- #11 - sorted out and excluded thinking unrelated to question and answer
- #12 - client asked to strengthen logical connections among thoughts
- #13 - client asked to clarify causal connections
- #14 - client asked to repeat or rephrase logical progression of thoughts
- #16 - frequently refocused on task

COGNITIVE DISORDER

MODIFICATIONS IN ASSESSMENT ADMINISTRATION

8. Fragmentation

- #1 - repeated directions whenever necessary
- #2 - client directed to read questions/answers aloud
- #3 - questions/answers read aloud to client
- #4 - client directed to re-read aloud
- #5 - client directed to re-read silently
- #6 - provided definition of terms
- #7 - questions/answers made more concrete with the use of examples
- #8 - reinforcement of adaptive "test-taking" behavior
- #9 - client asked to explain reasoning from question to response and correct illogical thinking
- #10 - include parts of question/answer that client failed to include

9. Overinclusion

- #6 - provided definition of terms
- #11 - sorted out and excluded thinking unrelated to question and answer
- #17 - questioned to make responses more specific
- #18 - questioned to make responses more general

10. Underinclusion

- #6 - provided definition of terms
- #10 - include parts of question/answer that client failed to include

2

7. Questions/answers were made more concrete with the use of examples. Examples were given by the interviewer and/or the client. This often helped to strengthen the definitions and understanding of concepts. An example repeatedly used with clients related to differences between interests and abilities. Clients were asked to think of something they did well, but didn't like (and vice versa). In addition, the interviewer would discuss examples in his/her own life which would be an appropriate illustration of the concept. This modification helped clients understand questions and helped them make logical links between questions and answers.

8. The interviewer reinforced adaptive test-taking behavior. Clients were consistently reinforced and given support during the Vocational Assessment Project interviews. Behavior which was reinforced included being on time for appointments and completing a certain number of items during each session. The interviewer provided encouragement to clients in focusing on the question, and in making their own decisions.

Reinforcement and support were frequently used to help clients complete the tests and surveys. Encouragement was important since many clients had frustrating vocational and test-taking experiences in the past. Reinforcement and support were particularly useful with clients who exhibited low levels of self-esteem and were passive or withdrawn. It often helped them to feel better about themselves and become more involved in the assessment process.

9. The client was asked to explain reasoning from question to response and illogical reasoning was corrected. This modification assisted the client in relating one thought to another in a meaningful way. In order to determine the connection between ideas, the interviewer often asked, "How did you decide on that answer?" The clients explained their reasoning and an attempt was made to correct illogical thinking. After the explanation, clients frequently commented, "It helps to talk to you about them. It helps me figure out the correct answer."

10. The interviewer included parts of a question or answer that the client failed to include. This modification was useful when clients would leave out the relevant information needed to respond to a question. The interviewer included parts of the question or answer which the client had failed to include. This facilitated client understanding of the whole idea represented in the question or answer. It was found to be an effective way to deal with underinclusion.

11. The interviewer sorted out and excluded thinking unrelated to question and answer. This modification was useful when clients would include irrelevancies when responding to a question. It was important for the interviewer to sort out and exclude these irrelevancies in order to help the client organize their thoughts and perceptions into relevant categories. This made concepts more manageable and understandable. It was particularly effective when a client was overinclusive.

12. The interviewer strengthened logical connections among thoughts. This modification helped clients to connect one thought to the next and facilitated the formation of relationships among thoughts. Once a relationship was clarified the client was better able to determine the most appropriate response. The interviewer frequently asked the client: "How are these two ideas related?" This facilitated the organization of related thoughts and clarified central themes.
13. The interviewer clarified causal connections. This modification was useful in correcting impaired concepts of causality. For example, many clients believed that they had no control over happenings in their own lives. They tended to be passive and blame the environment for things that occurred. On the other hand, the client sometimes saw causation as totally within the self (grandiosity), or attributed everything that occurred to the will of a person (teleologic causality). In clarifying the client's causal connection, an interviewer determined the extent of their distorted concepts. Exploring issues of causality and control assisted the client in gaining a better understanding of the way things are determined and resulted in more reasonable assessment responses.
14. The interviewer repeated or rephrased the logical progression of thoughts. This modification helped clients to connect and organize their thoughts in a logical progression or sequence. This made a logical response to the question more likely.
15. The interviewer separated fantasy from reality. This modification was used when a client exhibited delusions (a false belief held in spite of what almost everyone else believes and in spite of what constitutes incontrovertible and obvious proof to the contrary), or hallucinations (a sensory perception without external stimulation of the relevant sensory organ). Delusions and hallucinations represent a breakdown of organized thought and perception. When this occurred, it was necessary for the interviewer to help the client separate fantasy from reality and enable them to develop a more organized thought process. Clients were encouraged to focus on the test items and make appropriate choices based on their own ideas and experiences in their lives. Whenever possible, the interviewer sorted out and excluded those responses which were based in fantasy and reinforced those responses which were reality based.
16. The interviewer refocused the client on the task. This modification was useful in helping the client to focus on the question and make an appropriate response. The client was encouraged to concentrate on the question rather than discussing irrelevant or inappropriate thoughts and experiences. A frequent comment from the interviewer was "That's interesting, but let's get back to the question on the inventory that you were in the process of answering."
17. The interviewer directed the client to make responses more specific. This modification was used when clients talked in generalities and did not relate to the essential features of the question. Clients were often asked to specify responses: "What in particular do you want to say?"

18. The interviewer directed the client to make responses more general. This modification was used when clients would add extra irrelevant details in order to answer an item. The interviewer helped the client address the general meaning of the question rather than spend time on specific details which may be unnecessary to answer the question.

19. The interviewer directed the client to eliminate incorrect responses. This modification was used with clients who were undecided as to the correct response when multiple choice items were presented. The interviewer asked, "Is 'A' the correct response? If not, why not? Is 'B' a possibility? etc." "Can you eliminate any answer as definitely incorrect?"

20. The interviewer questioned infrequent response patterns and redirected the client to respond to the content of each question. This modification was used when clients would answer items in a pattern, i.e., True, False, True, False; five "Dislikes" and five "Likes", all B's, etc. In questioning their response pattern, the interviewer determined if the client was responding to the content of the question. If responses were unrelated to the questions, the interviewer helped the clients organize their thoughts and make appropriate responses to the question being asked.

Frequency of Modification Use

Table 1 reports the frequency of modification use. Interviewers reading aloud to clients was used most frequently (67.3% of the interviews used this modification). Other frequently used modifications included: defining terms (65.3%), reinforcement (58.4%), specifying responses (57.4%), using examples (55.4%), repeated directions (43.6%), corrected illogical thinking (41.6%), strengthened logical connections (39.6%) and sorted out unrelated thinking (36.6%). Each of these modifications circumvents a number of cognitive disorders, as described by Figure 1. Therefore, their greater frequency can be attributed to the number of cognitive difficulties addressed by each of these modifications.

Vignettes

The following four vignettes are taken from the anecdotal records of the interview study. They illustrate how some of the modifications in test administration previously described have actually been used during assessment interviews.

Table 1. Frequencies of Modifications Used in Test Administration (N=101)

MODIFICATION		PERCENT OF INTERVIEWS IN WHICH MODIFICATION WAS USED
1	Repeated directions whenever necessary	43.6%
2	Client directed to read questions/answers aloud	33.7%
3	Questions/answers read aloud to client	67.3%
4	Client directed to re-read aloud	17.8%
5	Client directed to re-read silently	31.7%
6	Provided definition of terms	65.3%
7	Questions/answers made more concrete with the use of examples	55.4%
8	Reinforcement of adaptive "test-taking" behavior	58.4%
9	Client asked to explain reasoning from question to response and corrected illogical thinking	41.6%
10	Include parts of question/answer that client failed to include	26.7%
11	Sorted out and excluded thinking un- related to question and answer	36.6%
12	Strengthened logical connections among thoughts	39.6%
13	Clarified causal connections	32.0%
14	Repeated or rephrased logical progression of thoughts	33.7%
15	Separated fantasy from reality	10.9%
16	Frequently refocused on task	37.6%
17	Questioned to make responses more specific	57.4%
18	Questioned to make responses more general	20.8%
19	Directed to eliminate incorrect responses	27.7%
20	Questioned infrequent response patterns and redirected	23.0%

Vignette #1

This vignette illustrates how the cognitive disorders of fragmentation and underinclusion can be corrected by having the client re-read the paragraph aloud and explain their reasoning from question to response to correct illogical reasoning. The interviewer also encourages the client to include parts of the question and/or answer which he failed to include.

The client was asked to read the following paragraph and select the most appropriate answer:

Pierre is rather shy and stays mostly by himself rather than talking with others or entering into games and sports on the playground. He goes home right after school and either reads science fiction or builds model airplanes. In class, he almost never raises his hand to answer questions, but he is one of the best students in math and physics.

Which one of the following occupations would be the best for him?

- F engineer
- G librarian
- H machinist
- J insurance agent
- K don't know

Client: "It seems the best answer would be librarian."

Interviewer: "How did you decide on that answer?"

Client: "It says he likes to read and librarians like to read - are around books. I look for cue words."

Interviewer: "Would you re-read the paragraph aloud to me?"
(Client does so.) "What other things does it say about Pierre besides that he likes to read?"

Client: "He builds model airplanes and he's good in math and physics but he's shy."

Interviewer: "Is there any other occupation which might be an option for Pierre if those are his interests and abilities?"

Client: "Well, I guess if he likes to read and build model airplanes and is good in math and physics, he could choose a job as an engineer. They like those things and are good in math and physics ... yeh, I'll choose engineer."

Vignette #2

This vignette illustrates how the cognitive disorder of blocking can be modified by the client reading the question, answering aloud, and then re-read the question silently. In addition, the interviewer refocuses the client on the task and gives support to maintain interest in the assessment.

The client was asked to read the following paragraph and select the most appropriate answer:

José thought back over the years to his first lessons. How awkward he was! Now, he was waiting to try out for a TV show which would run the whole season. His part in it would not be large, but it would give him a "credit" which might lead to a bigger part next time. He had worked hard to get this far - many hours of hard work each day. He also spent a lot of money for lessons. Competition in this field is stiff, and it is not easy to be successful.

What is his occupation?

- A commercial artist
- B dancer
- C physical therapist
- D roustabout
- E don't know

Interviewer: "D., why don't you begin by reading #21 out loud to me. (Client does so.) What do you think the best answer would be?"

Client: "I don't know"

Interviewer: "Maybe if you re-read the paragraph to yourself it would be easier to answer the question."

Client: "Yes, when I re-read something it helps me to remember what I read." (Client re-reads paragraph to herself, long pause.)

Interviewer: "What do you think José's occupation is?"

Client: "This is hard (pause)."

Interviewer: "You've been doing very well so far, why don't you give this one a try?"

Client: "Well, maybe he's a commercial artist or a dancer."

Interviewer: "What in the paragraph makes you think he'd be a commercial artist?"

Client: "Well he takes lessons and tries out for a TV show so . . ."
(long silence)

Interviewer: "I noticed you were very quiet for several minutes just now. What were you thinking about?"

Client: "I can't remember what I meant to say."

Interviewer: "You did a good job on the previous section - why don't you try to re-read the paragraph out loud and maybe then you'll remember your thoughts."

Client: "You're so patient. Well, I guess he's a dancer if he takes lessons and trys out for a TV show and he may get a bigger part next time."

Vignette #3

This vignette illustrates how the cognitive disorder of tangentiality can be modified by using definitions and giving examples to make the questions and answers more concrete. The interviewer continuously refocuses the client on the task and sorts out and excludes thinking unrelated to the question.

The client is asked to read the directions and Part I on the Strong Campbell Interest Inventory. In Part I the client chooses how they would feel about doing work in a particular job. Occupational titles are given and the client responds either "Like," "Dislike" or "Indifferent" to each occupation.

Interviewer: "Have you ever taken an interest inventory?"

Client: "I took the LSAT's."

Interviewer: "How is the LSAT different from this inventory, the Strong Campbell Interest Inventory?"

Client: "I'm not sure"

Interviewer: "What does it say here in the directions about what kind of inventory this is?"

Client: "Well, it says here that 'this is not a test of your abilities but an inventory of your interests'. I guess that LSAT was an ability test, huh? I wanted to either be a lawyer or a medical doctor but now I have to finish my dissertation so I can be a college professor."

Interviewer: "What is the difference between interests and abilities?"

Client: "Will this be telling me what I'm good at?"

Interviewer: "No, this is an interest inventory which helps you understand your work interests in general, the things you like to do. An ability test, like the LSAT, measures your skills, or what you're good at in certain areas."

Client: "So this will be about what I like. If you like something aren't you good at it?"

Interviewer: "Not always. Can you think of something you like but are not good in or something you're good in but don't like?"

Client: "I don't think so."

Interviewer: "I used to teach and I know that I'm good at teaching but I really don't like it very much - there are other things that I like better, like counseling. Can you think of an example for yourself?"

Client: "Yeh, I'm good at law but don't know whether I like it. I think I'd prefer to be a college professor. You know, I signed the atomic peace pact so, therefore, according to the Supreme Court, I should be entitled to own a college or university. The Foreign Minister of Guyana and I were going to get a shipment of nuclear weapons and store them in the arsenal at Livingston."

Interviewer: "That's interesting, but let's get back to the interest inventory. Why don't you begin answering whether you'd Like, Dislike or be Indifferent to doing the work involved in these various jobs."

Client: "Yeh, I'd like this. I've done all these jobs. This test was made for me. This one I'd like, military officer - they asked me to live at the White House but I was at sea in the international waters of the Atlantic."

Interviewer: "So your answer for military officer would be Like. The next one is minister, priest, or rabbi. How would you feel about doing that kind of work?"

Client: "Yeh, I'd like that too. I took courses at Livingston in religion. That was when Shirley Chisholm asked me to marry her. She came up to me at Livingston, that's when I was reading about Malcolm X."

Interviewer: "Let's finish this up. You only have a few more to complete in this section. How about #84?"

Vignette #4

This vignette illustrates how the cognitive disorders of overinclusion and circumstantiality can be modified by the interviewer sorting out and excluding thinking unrelated to the question and answer. The client was questioned to make responses more specific, asked to re-read the question aloud, and directed to refocus on the task.

The client was asked to read and answer True or False to the following statement: "Work is worthwhile mainly because it lets you buy the things you want."

Client: "You know, I want to work with people. My therapist, who I've gone to for two years, is supportive of my potential."

Interviewer: "If you did have a job working with people would you consider this work as worthwhile mainly because it lets you buy things?"

Client: "Well, I guess that's important. I'd like to have money. I'd also like to be like Clifford Beers who wrote 'The Mind that Found Itself.' I was like him nine years ago in the hospital. I'd like to write about my experiences."

Interviewer: "Let's go back to the question. Would you mostly agree or mostly disagree with the statement? Why don't you re-read the statement aloud."

Client: (Client re-reads statement aloud.) "I'm not sure if work is important for the money or for the good feelings I get. I like my job now and feel I'm helping people who have problems like mine. I used to be doing this job as a volunteer and collected unemployment and welfare. Then when I got the paid position I had to give up the unemployment. It's hard to live on what I make now, but I guess work is worthwhile for me mainly because it gives me a good feeling and it feels like I'm accomplishing something."

Interviewer: "Then your answer would be False since you mostly disagree with this statement."

Vocational History Questionnaire

A scoring system for the Vocational History Questionnaire was developed using Holland's six general occupational themes: artistic (A), conventional (C), enterprising (E), investigative (I), realistic (R), and social (S). The following definitions of these themes were used for item scoring (Campbell, 1977):

Artistic (A)

Persons of the artistic type prefer free, unstructured situations with maximum opportunities for self-expression; resemble investigative types in being introspective and asocial but differ in having less ego strength and greater need for individual expression, in being more impulsive, and in suffering more frequently from emotional disturbances; they are creative, especially in artistic and musical media; show aversions to problems that are highly structured or require gross physical skills; prefer dealing with problems through self-expression in artistic media; perform well on standard measures of creativity, and highly value aesthetic qualities; see themselves as expressive, original, intuitive, creative, disorderly, nonconforming, introspective, and independent. Vocational preferences include artist, author, composer, writer, musician, director, and symphony conductor.

Conventional (C)

Conventional people prefer well-ordered environments and like systematic verbal and numerical activities; are usually conforming and prefer subordinate roles; are effective at well-structured tasks, but avoid ambiguous situations and problems involving interpersonal relationships or physical skills; describe themselves as conscientious, efficient, obedient, calm, orderly, and practical; identify with power; and value material possessions and status. Vocational preferences include bank examiner, bookkeeper, clerical worker, financial analyst, quality control expert, statistician, and traffic manager.

Enterprising (E)

Persons of this type have verbal skills suited to selling, dominating, and leading; prefer to be strong leaders; have a strong drive to attain organizational goals or economic aims; tend to avoid work situations requiring long periods of intellectual effort; differ from conventional types in having a greater preference for ambiguous social tasks and an even greater concern for status, power, and leadership; see themselves as aggressive, popular, self-confident, cheerful, and sociable; generally have high energy level; and show an aversion to scientific activities. Vocational preferences include business executive, political campaign manager, real estate sales, stock and bond sales, television producer, and retail merchandising.

Investigative (I)

This category includes those with a strong scientific orientation: they are usually task-oriented, introspective and asocial; prefer to think through rather than act out problems; have a great need to understand the physical world; enjoy ambiguous tasks; prefer to work independently; have unconventional values and attitudes; usually perceive themselves as lacking in leadership or persuasive abilities, but are confident of their scholarly and intellectual abilities; describe themselves as analytical, curious, independent, and reserved; and especially dislike repetitive activities. Vocational preferences include astronomer, biologist, chemist, technical writer, and zoologist.

Realistic (R)

Persons of this type are robust, rugged, practical, and physically strong; somewhat uncomfortable in social settings; have good motor coordination and skills but lack verbal and interpersonal skills; usually perceive themselves as mechanically and athletically inclined; are practical, stable, natural, and persistent; prefer concrete to abstract problems; see themselves as aggressive; have conventional political and economic goals; and rarely perform creatively in the arts or sciences, but do like to build things with tools. Realistic types prefer such occupations as mechanic, engineer, electrician, fish and wildlife specialist, crane operator, tool designer, and various technician positions.

Social (S)

Persons of this type are sociable, responsible, humanistic, and religious; like to work in groups, and enjoy being central in the group; have verbal and interpersonal skills; avoid intellectual problem solving, physical exertion, and highly ordered activities; prefer to solve problems through feelings and interpersonal manipulation of others; enjoy activities that involve informing, training, developing, curing, or enlightening others; perceive themselves as understanding, responsible, idealistic, and helpful. Vocational preferences include clinical psychologist, missionary, high school teacher, marriage counselor, and speech therapist.

These definitions were applied to all the scorable items of the Vocational History which were coded A, C, E, I, R or S. The reasons for liking or disliking school subjects, jobs, and leisure and family activities (items 2 and 3) were scored as a measure of interests. "What I did best in and why" and "Trouble with and why" (items 3 and 4) were used to measure aptitudes. The following rules for scoring were applied to both interests and aptitudes:

1. An item was given a score of one on the general occupational theme which best described the content of the item (according to definitions listed above).

2. A single item received a score of one on two different general occupational themes, if the item content was best described by two themes.
3. A single item received a score of two on a general occupational theme, if it was clearly emphasized or identified as more important than others. For instance, items indicated as "liked best", "first choice", "did worst", "did best", etc., were scored as two on the general occupational theme which best described item content.
4. Item content which was not included in the definitions of the six general occupational themes, was not scored.
5. Identical responses given for different items was scored once.
6. Dislikes or opposites of a general occupational theme were not scored, unless the item content was clearly included in the definition of the theme.
7. Scores were summed for each occupational theme (interests and aptitudes separately).

This scoring system yielded twelve scores for each person: Six scores on A, C, E, I, R and S for interests and six scores on A, C, E, I, R and S for aptitudes. Scores on the Vocational History Questionnaires used in this project ranged from 0 to 16 for interests, and from 0 to 11 for aptitudes. According to this system, a score of 0 on an occupational theme means very little, if any, interest or aptitude in that general area. This is an ordinal scale in which a score of 3 on an occupational theme indicates more interest or aptitude in that area, than a score of 2.

One hundred twenty Vocational History Questionnaires were completed by subjects in the interview study. The following results were obtained:

1. Relative frequency distributions of general occupational theme scores for interests are reported in Table 2. Social ($\bar{X} = 7.18$) was the highest interest area for this mostly schizophrenic sample, followed by realistic ($\bar{X} = 5.75$) and artistic ($\bar{X} = 4.25$).
2. Table 3 reports the relative frequencies of general occupational theme scores for aptitudes. Like interests, social ($\bar{X} = 2.41$) was the highest aptitude theme, followed by realistic ($\bar{X} = 1.99$) and artistic ($\bar{X} = 1.61$).
3. The mean number of jobs listed by psychiatrically disabled clients on the job history was 4.56. This was greatly influenced by age and the fact that there were 5 spaces for the response. Relative frequencies for number of jobs listed on the Vocational History Questionnaire are found in Table 4.
4. Inter-rater reliability coefficients are underlined in the correlation matrix for interest scores found in Table 5. The scoring of interests by rater 1 and rater 2 is marginally reliable for artistic (.79), investigative (.74), social (.70) and realistic (.69) themes, but are unreliable for enterprising (.46) and conventional (.38).

Table 2. Frequency Distributions for General Occupational Theme Scores
on the Vocational History - Interests (N=120)

SCORE	RELATIVE FREQUENCY - PERCENT					
	ARTISTIC	CONVENTIONAL	ENTERPRISING	INVESTIGATIVE	REALISTIC	SOCIAL
LOW						
0	3.3%	14.9%	50.4%	24.0%	.8%	.8%
1	10.7%	17.4%	21.5%	44.6%	5.8%	1.7%
2	12.4%	25.6%	14.0%	14.9%	7.4%	5.0%
3	17.4%	22.3%	9.9%	10.7%	9.9%	5.8%
4	17.4%	9.1%	2.5%	3.3%	14.9%	9.9%
5	11.6%	5.8%	.8%	.8%	13.2%	12.4%
6	7.4%	2.5%	-	.8%	11.6%	11.6%
7	7.4%	1.7%	-	-	6.6%	9.1%
8	5.8%	-	-	-	9.9%	9.9%
9	-	-	-	-	5.0%	6.6%
10	4.1%	-	-	-	9.1%	9.1%
11	.8%	-	-	-	.8%	5.0%
12+	.8%	-	-	-	4.2%	12.4%
HIGH						
Mean Score	4.25	2.29	.94	1.30	5.75	7.18
Std. Deviation	2.71	1.63	1.19	1.18	3.06	3.44

Table 3. Frequencies for General Occupational Theme Scores on the Vocational History - Aptitudes (N=120)

SCORE	RELATIVE FREQUENCY - PERCENT					
	ARTISTIC	CONVENTIONAL	ENTERPRISING	INVESTIGATIVE	REALISTIC	SOCIAL
LOW						
0	22.3%	37.2%	76.9%	69.4%	10.7%	7.4%
1	32.2%	38.0%	19.0%	19.8%	28.9%	17.4%
2	22.3%	19.0%	2.5%	9.9%	24.8%	30.6%
3	9.1%	3.3%	.8%	-	23.1%	26.4%
4	10.7%	1.7%	-	-	8.3%	9.9%
5	2.5%	-	-	-	3.3%	5.0%
6	-	-	-	-	-	1.7%
7	-	-	-	-	-	-
8+	-	-	-	-	-	.8%
HIGH						
Mean Score	1.61	.93	.27	.40	1.99	2.41
Std. Deviation	1.36	.93	.55	.67	1.27	1.42

Table 4. Frequencies for Number of Jobs Listed on the Vocational History (N=120)

NUMBER OF JOBS LISTED	RELATIVE FREQUENCY PERCENT
0	-
1	3.3%
2	5.0%
3	17.4%
4	16.5%
5	40.5%
6	9.9%
7	3.3%
8+	3.3%
Mean Number of Jobs Listed	4.56
Standard Deviation	1.86

Table 5. Correlation Matrix of Vocational History Interest Scores
for Rater 1 and Rater 2 (N=63)

RATER 1						
	ARTISTIC	CONVENTIONAL	ENTERPRISING	INVESTIGATIVE	REALISTIC	SOCIAL
RATER 2:						
Artistic	<u>.79</u>	.18	.09	.03	.09	.22
Conventional	-.18	<u>.38</u>	.23	-.12	-.14	-.10
Enterprising	-.07	.14	<u>.46</u>	.09	.42	.22
Investigative	.17	-.17	.14	<u>.74</u>	.09	.18
Realistic	.08	-.22	.13	.15	<u>.69</u>	.43
Social	.18	.00	.16	.04	.40	<u>.70</u>

5. Table 6 reports inter-rater reliability coefficients for aptitude scores. The scoring of aptitudes by rater 1 and rater 2 is less reliable than their scoring of interests, but follows a similar relative pattern. Artistic scores were most highly correlated (.70), followed by realistic (.60), investigative (.57), social (.53), conventional (.29) and enterprising (.19).

6. The construct validity of the scoring system for the Vocational History Questionnaire was tested using a multitrait-multimethod matrix. This is presented in Table 7. Campbell and Fiske (1959) have established four criteria for construct validity. A multitrait-multimethod matrix demonstrates construct validity if: (a) reliability estimates are larger than convergent validity values; (b) convergent validity values are significantly different from zero and sufficiently large to merit further study; (c) convergent validity values are larger than heterotrait-heteromethod and heterotrait-monomethod values; and (d) the pattern of intercorrelations within the matrix is the same, irrespective of the method. The matrix in Table 7 satisfies three of these criteria. (a) Entries underlined in the convergent validity diagonal are less than their corresponding reliability coefficients in parenthesis, with the exception of C and E. (b) All convergent validity values (underlined) are high and significantly different from zero (.01 level). This means that on the same occupational theme, the correlation between the two different measures of interests and aptitudes (using different items on the Vocational History) is high. This tends to confirm the convergent validity of the Vocational History. However, it could also be caused by the fact that the two ratings were not completely independent, since they were made by the same rater. (c) All convergent validity values are greater than all heterotrait-heteromethod values (triangles with broken lines) and all heterotrait-monomethod values (triangles with solid lines). This indicates that the correlations among the same occupational themes measured in different ways are higher than the correlations among different themes measured in different ways (heterotrait-heteromethod triangles). It also means that the correlations among the same occupational themes measured in different ways are higher than the correlations of different themes measured in the same way (heterotrait-monomethod triangles). This supports the discriminant validity of the Vocational History Questionnaire. (d) While there is some similarity to the patterning of intercorrelations within the matrix, it does not seem sufficient to meet this criteria.

7. Table 8 gives the multitrait-multimethod matrix for vocational interests as measured by the Vocational History Questionnaire and the Strong-Campbell Interest Inventory. Again, this matrix seems to partially satisfy three of Campbell and Fiske's four requirements for construct validity: (a) Correlations underlined in the convergent validity diagonal are all less than their corresponding reliability coefficients in parenthesis. (b) Five of the six convergent validity values (all except E) are significantly different from zero (.05 level) and sufficiently large to merit further study. This seems to support the hypothesis that the SCII and the Vocational History are measuring the same general occupational themes. (c) Most of the convergent validity values are higher than most of the heterotrait-heteromethod and heterotrait-

Table 6. Correlation Matrix of Vocational History Aptitude
Scores for Rater 1 and Rater 2 (N=63)

RATER 1						
ARTISTIC	CONVENTIONAL	ENTERPRISING	INVESTIGATIVE	REALISTIC	SOCIAL	

<u>RATER 2:</u>						
Artistic	<u>.70</u>	-.26	.07	-.18	-.17	-.01
Conventional	-.15	<u>.29</u>	.29	.19	-.12	-.14
Enterprising	.04	.16	<u>.19</u>	.19	.00	.14
Investigative	.20	-.04	.12	<u>.57</u>	-.15	-.07
Realistic	-.23	-.06	-.13	.06	<u>.60</u>	.18
Social	.01	-.17	.14	-.03	.09	<u>.53</u>

Table 7. Multitrait-Multimethod Matrix for Vocational Interests and Aptitudes as Measured by Different Parts of the Vocational History (N=120)

		Vocational History - Aptitudes						Vocational History - Interests					
		A	C	E	I	R	S	A	C	E	I	R	S
Vocational History - Aptitudes	A	(.70)*											
	C	-.10	(.29)										
	E	-.14	-.04	(.19)									
	I	.03	.11	.07	(.57)								
	R	-.13	-.07	-.08	.00	(.60)							
	S	.06	.00	.01	-.17	.03	(.53)						
Vocational History - Interests	A	.54	-.02	-.19	.09	-.12	-.07	(.79)*					
	C	-.06	.53	-.15	.01	-.17	-.07	.09	(.38)				
	E	-.06	-.01	.55	.08	.09	.15	-.08	.00	(.46)			
	I	-.02	-.03	-.10	.55	.10	.00	.06	-.07	.06	(.74)		
	R	-.10	-.18	.01	.08	.57	.16	.06	-.16	.19	.19	(.69)	
	S	.05	.10	.11	-.04	.06	.57	.13	.04	.20	.02	.46	(.70)

* Reliability coefficients are based on inter-rater reliability (N=63)

Table 8. Multitrait-Multimethod Matrix for Vocational Interests
(Holland Code) as Measured by the Strong Campbell Interest
Inventory and the Vocational History

	Strong-Campbell						Vocational History					
	A	C	E	I	R	S	A	C	E	I	R	S
Strong - Campbell	A	(.87)*										
	C	.44	(.79)									
	E	.45	.80	(.80)								
	I	.73	.58	.50	(.78)							
	R	.49	.56	.56	.67	(.82)						
	S	.61	.77	.74	.63	.55	(.82)					
Vocational History	A	.28	.11	-.11	.01	.08	.22	(.79)**				
	C	.10	.30	.00	-.11	.13	.02	.09	(.38)			
	E	.14	.18	.08	-.21	.09	.12	-.08	.00	(.46)		
	I	.14	.15	-.09	.18	.12	.14	.06	-.07	.06	(.74)	
	R	.11	.05	.02	.05	.33	.07	.06	-.16	.19	.19	(.69)
	S	.22	.25	-.10	-.15	-.16	.20	.13	.04	.20	.02	.46 (.70)

* Test-Retest reliability after three years using a normal population (Manual for theSCII, 1977).

** Reliability coefficients for the Vocational History are based on inter-rater reliability (N=63).

monomethod values. This supports the discriminant validity of the Vocational History Questionnaire. (d) As in the previous multitrait-multimethod matrix, while there is some patterning of intercorrelations, it does not seem sufficient to meet this criteria. It is also important to note the differences between the two heterotrait-monomethod triangles (solid lines). The values in the triangle for the SCII are high (from .44 to .80). The correlations for the Vocational History in the heterotrait-monomethod triangle are much lower. With the exception of .46 for R, they range from 0 to .19. This seems to indicate that the SCII has poor discriminant validity, while the Vocational History discriminates well among the occupational themes.

8. The discriminant and convergent validity of the Vocational History is further supported by the varimax rotated factor matrix presented in Table 9. Eight factors were obtained from the varimax rotation to orthogonality. The proportion of variance accounted for by each factor is reported in Table 10. In the matrix presented in Table 9, high loading items (above .30) are underlined. Factors 1, 3, 4 and 5 all load highly on a consistent theme and loadings on the other themes in the factor are low. This indicates that both ratings of A, I, S and C are consistent and very reliable. Factor 2 is clearly loading on R, however, rater 1 had difficulty discriminating R and S (also evident in Factors 2, 6 and 8). Factors 6 and 7 appear to indicate that the raters had different ways of scoring the E-theme. For rater 1, E loads on factor 7 and for rater 2 E loads on factor 6. These results indicate that the raters were consistent in their ratings of four out of the six general occupational themes. Themes A, I, S and C have very high inter-rater reliability. The construct (convergent and discriminant) validity of the Vocational History Questionnaire was supported by this factor analysis.

9. The predictive validity of the Vocational History Questionnaire was tested using a discriminant function analysis. The results are reported in Tables 11 and 12. The only significant predictors of employment status (.05 level) were high scores on the Vocational History Questionnaire in social interest and investigative aptitude. The set of vocational interests and aptitudes described in Table 11, predicted employment status correctly in 70.25% of the cases. See Table 12.

Career Maturity Inventory

The Career Maturity Inventory was administered to more than half of the subjects in the interview study. Since the Attitude Scales are made up of true or false items, they took less time to administer and required fewer modifications than the Competence Tests. Each Competence Test consisted of 20 multiple-choice items. Subjects were directed to read a paragraph and choose the best answer from four or five options. The findings of this project with respect to the CMI are:

1. Mean scores on all the CMI Attitude Scales were lower for the psychiatrically disabled subjects, than for the 12th grade norm group Crites (1978) reported. These are found in Table 13.
2. Table 13 also compares the means for the psychiatrically disabled subjects

Table 9. Varimax Rotated Factor Matrix of Vocational History Interest
and Aptitude Scores for Rater 1 and Rater 2 (N=63)

THEME		FACTOR 1	FACTOR 2	FACTOR 3	FACTOR 4	FACTOR 5	FACTOR 6	FACTOR 7	FACTOR 8
Rater 2 Interests	A	<u>.82</u>	.03	-.02	.12	.07	-.04	.05	-.05
	C	-.01	-.14	-.08	.11	<u>.66</u>	-.10	.18	-.12
	E	-.14	.14	-.05	.05	-.01	<u>.74</u>	<u>.34</u>	.02
	I	.11	.06	<u>.74</u>	.00	-.06	<u>.04</u>	<u>.06</u>	.09
	R	-.01	<u>.74</u>	<u>.15</u>	.26	-.15	.09	-.01	-.21
	S	.05	<u>.26</u>	-.03	<u>.94</u>	.02	.16	.04	-.04
Rater 2 Aptitudes	A	<u>.70</u>	-.10	-.06	-.02	-.09	-.20	.11	.05
	C	-.22	-.13	.17	.00	<u>.65</u>	-.26	.12	-.04
	E	-.04	.00	.15	.07	<u>.01</u>	<u>.62</u>	.05	.03
	I	.13	.00	<u>.70</u>	-.04	.07	<u>.01</u>	-.05	-.14
	R	-.16	<u>.81</u>	<u>.07</u>	-.02	-.11	-.19	.03	.12
	S	-.01	-.03	-.09	<u>.62</u>	-.02	-.05	.13	<u>.34</u>
Rater 1 Interests	A	<u>.87</u>	.04	.15	.09	-.11	.14	-.11	-.03
	C	.18	-.11	-.20	-.04	<u>.55</u>	.21	.00	-.01
	E	.06	.15	.10	.05	.12	.17	<u>.88</u>	-.01
	I	.00	.11	<u>.75</u>	.02	-.07	.08	<u>.13</u>	.15
	R	.07	<u>.79</u>	<u>.07</u>	.19	-.04	<u>.37</u>	.05	.08
	S	.25	<u>.42</u>	.11	<u>.52</u>	-.02	<u>.33</u>	.01	.24
Rater 1 Aptitudes	A	<u>.81</u>	-.13	.05	-.05	.01	-.03	.07	-.03
	C	-.23	.13	-.09	-.27	<u>.49</u>	.24	.15	-.02
	E	.10	-.14	.13	.10	.29	.15	<u>.62</u>	.02
	I	-.14	.01	<u>.72</u>	-.01	-.08	.03	<u>.05</u>	-.03
	R	-.17	<u>.61</u>	-.14	-.10	-.08	.02	-.04	<u>.50</u>
	S	-.01	.09	.13	<u>.35</u>	-.16	.08	.00	<u>.90</u>

Table 10. Eigen Values for Vocational History Factor Matrix for
Rater 1 and Rater 2 (N=63)

FACTOR	EIGENVALUE	% OF VARIANCE	CUM %
1	3.92671	24.8%	24.8%
2	3.08064	19.5%	44.3%
3	2.35519	14.9%	59.2%
4	2.20244	13.9%	73.2%
5	1.42843	9.0%	82.2%
6	1.10946	7.0%	89.2%
7	0.98960	6.3%	95.5%
8	0.71705	4.5%	100.0%

Table 11. Summary of Discriminant Function Analysis for Vocational Aptitudes and Interests (measured by the Vocational History) Used to Predict Employment Status (N=120)

HOLLAND CODE	WILKS' LAMBDA	SIG.	RAO'S V	SIG.	CHANGE IN V	SIG.
Interest: Social	0.94	0.01	7.07	0.008	7.07	0.01
Aptitude: Investigative	0.91	0.01	11.09	0.004	4.02	0.04
Interest: Enterprising	0.90	0.01	13.71	0.003	2.62	0.11
Interest: Realistic	0.88	0.01	15.80	0.003	2.08	0.15
Aptitude: Artistic	0.87	0.01	17.54	0.004	1.75	0.19
Interest: Artistic	0.86	0.01	19.57	0.003	2.03	0.15

Table 12. Classification Results of Discriminant Function Analysis
for Vocational Aptitudes and Interests (measured by the
Vocational History) Used to Predict Employment Status (N=121)

EMPLOYMENT STATUS	N CASES	PREDICTED GROUP MEMBERSHIP	
		UNEMPLOYED	EMPLOYED
Unemployed	95 100%	68 71.6%	27 28.4%
Employed	26 100%	9 34.6%	17 65.4%
Percent of Cases Classified Correctly			70.25%

Table 13. Means and Standard Deviations of Career
Maturity Inventory Raw Scores for
Psychiatrically Disabled Adults and 12th Graders*.

SCALES CMI	N*	12th GRADERS		PSYCHIATRICALY DISABLED		
		MEAN*	STD. DEVIATION*	N	MEAN	STD. DEVIATION
<u>ATTITUDE SCALES:</u>						
Form A-2	7737	34.78	5.34	19	32.79	14.30
Decisiveness	330	5.77	2.26	53	4.66	2.23
Involvement	330	8.80	1.32	53	7.62	2.16
Independence	330	9.01	1.39	53	8.11	1.90
Orientation	330	8.14	2.06	53	6.47	9.23
Compromise	330	5.69	1.36	53	4.47	1.59
<u>COMPETENCE TESTS:</u>						
Knowing Yourself	7178	13.54	3.57	53	14.30	3.16
Knowing About Jobs	7224	15.94	3.69	51	17.29	2.98
Choosing a Job	7185	13.22	3.58	49	14.63	3.21
Looking Ahead	7020	13.43	4.14	49	14.35	3.57
What Should They Do	7075	10.95	3.39	49	12.37	3.05

* Taken from CMI Administration and Use Manual (Crites, 1978)

and 12th graders on the five CMI Competence Tests. The mean scores of psychiatrically disabled clients exceeded 12th graders on every test. This may be due to the fact that the comparison is between adults and 12th graders, or because the tests were administered under modified conditions.

3. Kuder Richardson reliability coefficients for all CMI scales are reported in Table 14. While the two forms of the Attitude Scale appear fairly reliable (.857 and .848), the number of items far exceeds the number of cases. This maximizes the chance that reliability will be achieved. The same is true of the combined Competence Tests (.779). The number of items is more than twice the number of cases. Reliability for parts 1 (Knowing Yourself) and 4 (Looking Ahead) are .673 and .531 respectively. While these are high enough for research purposes, they are not sufficiently high to support the general use of these tests with a psychiatrically disabled population. Since Kuder Richardson reliability coefficients are the upper limits of measures of internal consistency, any other internal consistency measure would be expected to be even lower. Parts 2 - Knowing about Jobs (.379), 3 - Choosing a Job (.445) and 5 - What Should They Do (.359) were clearly unreliable.

4. The Orientation scale of the CMI was used to predict employment status in a step wise discriminant function analysis, but the result was not significant. See Table 15. Although this Attitude Scale correctly classified 91.6% of the unemployed groups as unemployed, it incorrectly classified 76.9% of the employed subjects as unemployed. This is reported in Table 16.

5. Three of the CMI Competence Tests were used to predict employment status and none were significant. Results are reported in Tables 17 and 18.

Katz Social Adjustment Scale

The Katz Social Adjustment Scale is a level of functioning measure made up of two subscales: the Activities of Daily Living and Leisure Time Activities. It was administered to about two-thirds of the interview subjects. The findings were as follows:

1. Kuder Richardson reliability coefficients are reported in Table 19. Activities of Daily Living and Leisure Time Activities have reliability coefficients of .723 and .895 respectively. Both are reliable for general use with a psychiatrically disabled population.

2. Table 20 presents the results of a discriminant function analysis for the items of the Katz which were significant (.05 level) predictors of employment status. 96.69% of the subjects were correctly classified as employed or unemployed. This demonstrates the excellent predictive validity of the Katz. Classification results are reported in Table 21.

Table 14. Kuder Richardson Reliability Coefficients for the Career Maturity Inventory (CMI)

SCALE	RELIABILITY COEFFICIENT	N CASES	N ITEMS
CMI - Attitude Scale (form A-1)	.857	18	50
CMI - Attitude Scale (form B-1)	.848	50	75
CMI - Competence Test (all parts)	.779	47	100
CMI - Competence Test - Part 1	.673	52	20
CMI - Competence Test - Part 2	.379	51	20
CMI - Competence Test - Part 3	.445	49	20
CMI - Competence Test - Part 4	.531	49	20
CMI - Competence Test - Part 5	.359	48	20

Table 15. Summary of Discriminant Function Analysis for CMI -
Attitude Scale (B-1) Used to Predict Employment Status
(N=53)

CMI S LE	WILKS' LAMBDA	SIG.	RAO'S V	SIG.	CHANGE IN V	SIG.
Orientation	0.95	0.09	2.93	0.09	2.93	0.09

Table 16. Classification Results of Discriminant Function
 Analysis for CMI - Attitude Scale (B-1) Used
 to Predict Employment Status (N=121)

EMPLOYMENT STATUS	N CASES	PREDICTED GROUP MEMBERSHIP	
		UNEMPLOYED	EMPLOYED
Unemployed	95 100%	87 91.6%	8 8.4%
Employed	26 100%	20 76.9%	6 23.1%
Percent of Cases Correctly Classified			76.86%

Table 17. Summary of Discriminant Function Analysis for Career
Maturity Inventory - Competence Tests Used to Predict
Employment Status (N=49)

TEST	WILKS' LAMBDA	SIG.	RAO'S	SIG.	CHANGE IN V	SIG.
Looking Ahead - Planning	0.94	0.09	3.09	0.08	3.09	0.08
Knowing Yourself	0.92	0.14	4.28	0.12	1.18	0.28
Knowing about Jobs	0.90	0.17	5.46	0.14	1.19	0.28

Table 18. Classification Results of Discriminant Function Analysis for Those
CMI - Competence Tests Used to Predict Employment Status (N=121)

EMPLOYMENT STATUS	N CASES	PREDICTED GROUP MEMBERSHIP	
		UNEMPLOYED	EMPLOYED
Unemployed	95 100%	82 86.3%	13 13.7%
Employed	26 100%	11 42.3%	15 57.7%
Percent of Cases Classified Correctly			80.17%

Table 19. Kuder Richardson Reliability Coefficients for the SCL-90 and the
Katz Social Adjustment Scale

SCALE	RELIABILITY COEFFICIENT	N CASES	N ITEMS
SCL-90 (all scales)	.968	71	90
Katz - Activities of Daily Living	.723	76	16
Katz - Leisure Time Activities	.895	73	22

Table 20. Summary Table of Discriminant Function Analysis for Those
Items on the Katz Which Were Significant Predictors of
Employment Status (N=71)

ITEM	WILKS' LAMBDA	SIG.	RAO'S V	SIG.	CHANGE IN V	SIG.
Work	0.53	0.001	60.81	0.001	60.81	0.001
Care and training of children	0.48	0.001	75.67	0.001	14.86	0.001
Remember to do important things on time	0.45	0.001	84.78	0.001	9.11	0.003
Read	0.42	0.001	95.15	0.001	10.37	0.001
Write letters	0.38	0.001	110.80	0.001	15.61	0.001
Support the family	0.37	0.001	118.30	0.001	7.54	0.006
Community or church work	0.36	0.001	123.20	0.001	4.94	0.026
Work on some hobby	0.35	0.001	128.60	0.001	5.41	0.020
Go to the movies	0.34	0.001	135.30	0.001	6.71	0.010
Get along with neighbors	0.33	0.001	142.70	0.001	7.31	0.007
Shop	0.32	0.001	149.90	0.001	7.22	0.007
Visit friends	0.31	0.001	156.20	0.001	6.35	0.012
Watch television	0.30	0.001	162.80	0.001	6.59	0.010
Listen to the radio	0.29	0.001	169.00	0.001	6.22	0.013
Visit friends	0.28	0.001	175.80	0.001	6.76	0.009

Table 21. Classification Results of Discriminant Function Analysis for Those Items on the Katz Which Were Significant Predictors of Employment Status (N=121)

EMPLOYMENT STATUS	N CASES	PREDICTED GROUP MEMBERSHIP	
		UNEMPLOYED	EMPLOYED
Unemployed	95 100%	93 97.9%	2 2.1%
Employed	26 100%	2 7.7%	24 92.3%
Percent of Cases Correctly Classified			96.69%

SCL-90

The SCL-90 was administered to 74 subjects in the interview study. The following results were obtained:

1. All scales of the SCL-90 had a Kuder Richardson reliability coefficient of .968. While this is impressive, it must be noted that the number of items is greater than the number of cases. See Table 19.
2. Means and standard deviations for SCL-90 subscales are reported in Table 22. These are comparable to those reported by Deragotis (1976) for psychiatric outpatients.
3. SCL-90 subscale scores were used as independent variables in a discriminant function analysis to predict employment status. None of the SCL-90 subscales were significant predictors. Results in Tables 23 and 24 fail to support the predictive validity of the SCL-90 or its use as a measure of rehabilitation potential.

Strong Campbell Interest Inventory

The Strong Campbell Interest Inventory was administered to 63 subjects (81% schizophrenic) under modified conditions. In most interviews, occupations were defined whenever necessary and efforts were made to differentiate likes from dislikes and interests from abilities. The following results were obtained:

1. The interests of psychiatrically disabled females do not seem significantly different from the interests of the females Campbell (1977) used in his norm group. Means and standard deviations of the general occupational themes presented in Table 25 show few differences between the two groups. The only moderately large discrepancy is on the enterprising theme. On the SCII, psychiatrically disabled females (52.2) appear to have more enterprising interests than normal females (48.1).
2. The interests of psychiatrically disabled males are also similar to males in the general population. Table 26 shows that there are some differences on the artistic, conventional and social themes. The means for the interests of psychiatrically disabled males are greater than for normals on these three general occupational themes, but none of the differences is greater than half a standard deviation.
3. The intercorrelations among the theme scores of the SCII are reported in the heterotrait-monomethod (top, solid) triangle of the matrix in Table 8. These intercorrelations are high, ranging from .44 to .80. This probably means that there was very little interest patterning on the SCII for schizophrenic subjects. Profiles tend to be flat indicating a lack of differentiation of interests with many responding like or dislike to most questions on the inventory.

Table 22. Means and Standard Deviations for SCL-90
Subscales (N=74)

SUBSCALE	MEAN	STANDARD DEVIATION
Somatization	.75	.66
Obsessive - Compulsive	1.56	.97
Interpersonal Sensitivity	1.35	.89
Depression	1.38	.82
Anxiety	1.21	.80
Hostility	.75	.74
Phobic Anxiety	.92	.88
Paranoid Ideation	1.23	.93
Psychoticism	.99	.81
General Symptom Index	1.12	.67

Table 23. Summary Table of Discriminant Function Analysis for Those
SCL-90 Subscales Which Were Used to Predict Employment
Status (N=121)

SCALES	WILKS' LAMBDA	SIG.	RAO'S V	SIG.	CHANGE IN V	SIG.
Paranoid Ideation	0.98	0.25	1.35	0.25	1.35	0.25
Phobic Anxiety	0.96	0.26	2.78	0.25	1.44	0.23
Interpersonal Sensitivity	0.95	0.28	4.03	0.26	1.25	0.26

Table 24. Classification Results for Those Subscales of the SCL-90
Which Were Used to Predict Employment Status (N=121)

EMPLOYMENT STATUS	N CASES	PREDICTED GROUP MEMBERSHIP	
		UNEMPLOYED	EMPLOYED
Unemployed	95 100%	73 76.8%	22 23.2%
Employed	26 100%	10 38.5%	16 61.5%
Percent of Cases Correctly Classified			73.55%

Table 25. Means and Standard Deviations of General Occupational Theme Scores - Strong Campbell Interest Inventory for Psychiatrically Disabled (N=63) and Normal Females (N=300)*

THEME	PSYCHIATRICALY DISABLED FEMALES		NORMAL FEMALES	
	MEAN	STD. DEVIATION	*MEAN	*STD. DEVIATION
Artistic	53.5	9.9	53.2	8.9
Conventional	50.5	12.7	50.1	10.2
Enterprising	52.2	11.5	48.1	8.8
Investigative	49.1	11.4	48.5	10.1
Realistic	45.3	10.9	45.5	9.9
Social	53.1	12.8	51.3	9.0

* Taken from the Manual for Strong Campbell Interest Inventory (Campbell, 1977)

Table 26. Means and Standard Deviations of General Occupational Theme Scores - Strong Campbell Interest Inventory for Psychiatrically Disabled (N=63) and Normal Males (N=300)*

THEME	PSYCHIATRICALY DISABLED MALES		NORMAL MALES	
	MEAN	STD. DEVIATION	*MEAN	*STD. DEVIATION
Artistic	52.5	11.2	46.8	11.0
Conventional	53.5	12.9	49.9	9.8
Enterprising	52.8	11.5	51.9	11.1
Investigative	51.9	11.0	51.5	9.9
Realistic	52.5	12.7	54.5	10.1
Social	52.2	12.9	48.7	10.9

* Taken from the Manual for Strong Campbell Interest Inventory (Campbell, 1977)

Interviewer Ratings

Three different interviewer rating forms were used during the study (See Appendix I). These consisted of (1) a semantic differential in which items corresponded to the variables measured during the assessment, (2) an evaluation of psychiatric disability and mental status, and (3) a listing of the modifications which were required in the course of test administration. The following findings were related to these interviewer rating forms:

1. The Kuder Richardson reliability coefficients for interviewer ratings are reported in Table 27. All scales were fairly reliable for research purposes and the cognitive disorders (.855) and modifications (.913) were particularly high.
2. Table 28 reports a summary of a step-wise discriminant function analysis for those items on the interviewer evaluation of psychiatric disability which were used to predict employment status. Only bland affect (characteristic of chronic schizophrenia) was significant (.05 level). These items correctly classified 76.86% of the subjects as employed or unemployed. See Table 29.
3. Results of the discriminant function analysis for the semantic differential are reported in Tables 30 and 31. The item "vocationally involved/uninvolved" was the best predictor of employment status (.001 level). It correctly classified 80.8% of the employed group.

Differential Aptitude Test

The Abstract Reasoning scale of the Differential Aptitude Test battery was administered to 29 subjects. It consists of 50 multiple-choice items. Despite the fact that there are almost twice as many items as subjects, the DAT - Abstract Reasoning scale was found to be very unreliable for this psychiatrically disabled sample. Table 32 reports a Kuder Richardson reliability coefficient of .325. Since this level of reliability is too low for research purposes, the DAT was excluded from further statistical analysis.

Motivational Measures

Three motivational measures were used in the interview study: Attitudes about Myself and Work, Work Related Activities and the Wall estimation. These were administered to 93 subjects and the following results were obtained:

1. A Kuder Richardson reliability coefficient of .292 is reported in Table 33 for Attitudes About Myself and Work. This is clearly unacceptable. However, the reliability of this scale can be improved by deleting items

Table 27. Kuder Richardson Reliability Coefficients for
Interviewer Ratings

SCALE	RELIABILITY COEFFICIENT	N CASES	N ITEMS
Entire Interviewer Rating	.682	100	51
Mental Status	.644	28	27
Cognitive Disorders	.855	103	12
Perceptual Disorders	.621	103	7
Depersonalization	.607	103	6
Modifications Used in Assessment	.913	33	24

Table 28. Summary Table of Discriminant Function Analysis for
Those Items on the Interviewer Rating Form Which Were
Used as Predictors of Employment Status (N=103)

ITEM	WILKS' LAMBDA	SIG.	RAO'S V	SIG.	CHANGE IN V	SIG.
Affect: Bland	0.96	0.05	3.95	0.05	3.95	0.05
Affect: Irritable	0.93	0.03	7.27	0.03	3.32	0.07
Perception: Hallucinations-visual	0.91	0.02	10.00	0.02	2.74	0.10
Perception: Grandiose	0.89	0.03	11.98	0.02	1.97	0.16
Affect: Normal	0.88	0.03	13.63	0.02	1.65	0.20
Affect: Appropriate	0.87	0.03	15.39	0.02	1.76	0.18
Affect: Suspicious	0.86	0.03	16.94	0.02	1.55	0.21
Affect: Sad	0.84	0.03	19.47	0.01	2.54	0.11
Affect: Hopeless	0.82	0.03	21.86	0.01	2.39	0.12

Table 29. Classification Results of Discriminant Function Analysis for
Those Items on the Interviewer Rating Form Which Were Significant
Predictors of Employment Status (N=121)

EMPLOYMENT STATUS	N CASES	PREDICTED GROUP MEMBERSHIP	
		UNEMPLOYED	EMPLOYED
Unemployed	95 100%	79 83.2%	16 16.8%
Employed	26 100%	12 46.2%	14 53.8%
Percent of Cases Correctly Classified			76.86%

Table 30. Summary Table of Discriminant Function Analysis for
Those Items on the Semantic Differential Which Were
Significant Predictors of Employment Status (N=85)

ITEM	WILKS' LAMBDA	SIG.	RAO'S V	SIG.	CHANGE IN V	SIG.
Vocationally Involved/Uninvolved	0.88	0.001	11.41	0.001	11.41	0.001
Successful/Unsuccessful	0.86	0.002	13.41	0.001	2.00	0.158
Active/Passive	0.83	0.002	16.63	0.001	3.22	0.073

Table 31. Classification Results of Discriminant Function Analysis
for Those Items on the Semantic Differential Which Were
Significant Predictors of Employment Status (N=121)

EMPLOYMENT STATUS	N CASES	PREDICTED GROUP MEMBERSHIP	
		UNEMPLOYED	EMPLOYED
Unemployed	95 100%	68 71.6%	27 28.4%
Employed	26 100%	5 19.2%	21 80.8%
Percent of Cases Correctly Classified			73.55%

Table 32. Kuder Richardson Reliability Coefficient
for the Differential Aptitude Test - Abstract
Reasoning

SCALE	RELIABILITY COEFFICIENT	N CASES	N ITEMS
DAT - Abstract Reasoning	.325	29	50

Table 33. Kuder Richardson Reliability Coefficients for the Work Value Scale - Attitudes About Myself and Work

ITEM NUMBERS	SCALE MEAN IF ITEM DELETED	SCALE VARIANCE IF ITEM DELETED	CORRECTED ITEM TOTAL CORRELATION	ALPHA IF ITEM DELETED
1	20.25806	6.10659	0.17699	0.23117
2	20.76344	6.81300	-0.02379	0.34168
3	20.18280	7.04231	-0.00602	0.31666
4	20.56989	5.68256	0.26442	0.17710
5	21.16129	6.46283	0.14090	0.25346
6	20.09677	6.97966	-0.01997	0.32885
7	21.00000	6.58696	0.10102	0.27180
8	21.13978	6.36068	0.22244	0.22181
9	20.00000	7.43478	-0.13164	0.37896
10	21.34409	5.74988	0.43839	0.12536

SCALE	RELIABILITY COEFFICIENT	N CASES	N ITEMS
Attitudes About Myself and Work	.292	93	10

2, 3, 6 and 9. (See alpha if item deleted.) When only the remaining items (1, 4, 5, 7, 8, 10) are included in the analysis, the reliability coefficient is increased to .506, which is acceptable for research purposes.

2. Tables 34 and 35 report the results of a discriminant function analysis for three items on the Work Values Scale (Attitudes About Myself and Work). Only item 9 is significant, but it is also one of the items found to be least reliable.

3. The Work Related Activities Scale has a Kuder Richardson reliability coefficient of .750. This indicates a fairly high level of reliability for research purposes and it is marginally reliable for general use with a psychiatrically disabled population. This is reported in Table 36.

4. The predictive value of the Work Related Activities items are reported in Tables 37 and 38. Three items were significant predictors of employment status (.05 level). Classification results show that these items successfully classified 69.2% of the employed group.

5. The Wall estimation was found to lack predictive validity.

Rosenberg Self-Esteem Scale

The Rosenberg Self-Esteem Scale was administered to 100 subjects in the interview study and the following were the findings:

1. The Kuder Richardson reliability coefficient for the Rosenberg Self-Esteem Scale was .152. This indicates that this measure of self-esteem is unreliable when used to assess a psychiatrically disabled sample. Table 39 reports alpha's for each item deleted. These values are also low, indicating that deleting certain items would not substantially improve the reliability of the scale.

2. Although the Rosenberg is unreliable as a scale, certain items have predictive validity. "I have a number of good qualities" and "I am a person of worth" are both significant (.05 level) predictors of employment status. The results of this discriminant function analysis are reported in Tables 40 and 41.

Biographical Data

Biographical data for the interview study was obtained from the Individual Client Inventory and client records. This information is summarized below:

1. The frequency distributions for selected demographic and biographical variables are found in Table 42. 55.4% of the sample was male and the mean age was 30.3 years. The mean educational level was 12.2 years. 41.8% were Catholic, 41.3% were Protestant, 14.9% were Jewish and 3% were Atheists. 47% of the sample rated their psychiatric disabilities as moderately severe or worse. 21.5% of the subjects in the interview study were employed. 85.9% were white and 14.1% were black.

Table 34. Summary of Discriminant Function Analysis for Those Items
on the Work Values Scale ("Attitudes about Myself and Work")
Used to Predict Employment Status (N=93)

ITEM		WILKS' LAMBDA	SIG.	RAO'S V	SIG.	CHANGE IN V	SIG.
9	I would avoid working if I could	0.96	0.05	3.97	0.05	3.97	0.05
5	I feel better about myself when I am employed	0.94	0.08	5.37	0.07	1.41	0.24
1	Most things are more important than work	0.93	0.10	6.51	0.09	1.14	0.29

Table 35. Classification Results of the Discriminant Function Analysis for Those Items on the Work Values Scale ("Attitudes about Myself and Work") Used to Predict Employment Status (N=121)

EMPLOYMENT STATUS	N CASES	PREDICTED GROUP MEMBERSHIP	
		UNEMPLOYED	EMPLOYED
Unemployed	95 100%	66 69.5%	29 30.5%
Employed	26 100%	10 38.5%	16 61.5%
Percent of Cases Classified Correctly			67.77%

Table 36. Kuder Richardson Reliability Coefficient for the
Work Related Activities Scale

SCALE	RELIABILITY COEFFICIENT	N CASES	N ITEMS
Work Related Activities	.750	81	16

Table 37. Summary Table of Discriminant Function Analysis for
Those Items on the Work Related Activities Scale Which
Were Used to Predict Employment Status (N=121)

ITEM	WILKS' LAMBDA	SIG.	RAO'S V	SIG.	CHANGE IN V	SIG.
Applied for job training	0.93	0.002	9.65	0.002	9.65	0.002
Attend school	0.89	0.001	15.14	0.001	5.49	0.019
Asked about a job placement	0.86	0.001	18.61	0.001	3.48	0.062
Talked to my therapist about working	0.83	0.000	23.72	0.001	5.11	0.024
Phoned about a job placement	0.82	0.000	26.62	0.001	2.90	0.089
Applied for a job	0.81	0.000	27.95	0.001	1.33	0.249

Table 38. Classification Results of Discriminant Function Analysis for Those Items on the Work Related Activities Scale Which Were Significant Predictors of Employment Status (N=121)

EMPLOYMENT STATUS	N CASES	PREDICTED GROUP MEMBERSHIP	
		UNEMPLOYED	EMPLOYED
Unemployed	95 100%	56 58.9%	39 41.1%
Employed	26 100%	8 30.8%	18 69.2%
Percent of Cases Correctly Classified			61.16%

Table 39. Kuder Richardson Reliability Coefficients for the Rosenberg
Self-Esteem Scale

ITEM NUMBERS	SCALE MEAN IF ITEM DELETED	SCALE VARIANCE IF ITEM DELETED	CORRECTED ITEM- TOTAL CORRELATION	ALPHA IF ITEM DELETED
1	21.28000	7.53697	-0.09707	0.21518
2	21.42000	6.89253	0.11749	0.10769
3	20.28000	6.78949	0.04466	0.14180
4	21.13000	6.94253	0.03320	0.14816
5	20.31000	6.76152	0.04555	0.14131
6	20.92000	7.28646	-0.05289	0.19700
7	20.72000	7.23394	-0.05767	0.20409
8	20.91000	6.12313	0.20432	0.03652
9	20.85000	6.57323	0.07921	0.11929
10	20.53000	5.96879	0.18741	0.03754

SCALE	RELIABILITY COEFFICIENT	N CASES	N ITEMS
Rosenberg Self-Esteem	.152	100	10

Table 40. Summary Table of Discriminant Function Analysis for
Those Items on the Rosenberg Self-Esteem Scale Which
Were Significant Predictors of Employment Status (N=100)

ITEM	WILKS' LAMBDA	SIG.	RAO'S V	SIG.	CHANGE IN V	SIG.
I have a number of good qualities	0.96	0.04	4.24	0.04	4.24	0.04
I am a person of worth, at least on an equal plane with others	0.92	0.01	9.07	0.01	4.83	0.03
I do not have much to be proud of	0.90	0.02	11.18	0.01	2.11	0.15
I am able to do things as well as most people	0.88	0.02	12.91	0.01	1.73	0.19

Table 41. Classification Results of Discriminant Function Analysis for Those Items on the Rosenberg Self-Esteem Scale Which Were Significant Predictors of Employment Status (N=121)

EMPLOYMENT STATUS	N CASES	PREDICTED GROUP MEMBERSHIP	
		UNEMPLOYED	EMPLOYED
Unemployed	95 100%	61 64.2%	34 35.8%
Employed	26 100%	8 30.8%	18 69.2%
Percent of Cases Correctly Classified			65.29%

Table 42. Frequency Distributions for Selected Demographic and
Biographical Variables in the Interview Sample (N=121)

VARIABLE		RELATIVE FREQUENCY PERCENT	MEAN	STD. DEVIATIONS
Sex:	male	55.4%		
	female	44.6%		
Age:	17 - 25 years	35.7%	30.33 years	9.01
	26 - 35 years	42.9%		
	36 - 45 years	15.7%		
	46 - 59 years	5.6%		
Education:	less than 12 years	29.5%	12.18 years	2.47
	high school graduate	38.0%		
	some college	4.2%		
	completed 2 yrs. of college	15.5%		
	completed 4 yrs. of college	9.9%		
	more than 4 yrs. of college	2.8%		
Religion:	Catholic	41.8%		
	Protestant	41.3%		
	Jewish	14.9%		
	Atheist	3.0%		
Severity of Disability: (self-rated)	no problem	20.0%		
	mild	17.0%		
	moderately severe	16.0%		
	very severe	17.0%		
	unable to function	14.0%		
	don't know	16.0%		
Employment Status:	employed	21.5%		
	unemployed	78.5%		
Race:	white	85.9%		
	black	14.1%		

2. For the 26 employed subjects, Table 43 gives the length of their present employment. 23 were employed in their present jobs for less than one year.
3. Table 44 gives the frequency distribution of diagnostic categories. These were determined by an experienced clinician who reviewed client records and in some cases, consulted the attending psychiatrist. 81.2% of the interviewed subjects were diagnosed as schizophrenic. The largest subtypes were chronic undifferentiated (40.5%) and paranoid (27.3%).
4. None of the biographical variables used in the discriminant function analysis was a significant predictor of employment status. The biographical variables which were the most powerful of those selected are reported in Table 45. However, Table 46 illustrates that they only classify 39.67% of the cases correctly.

General Aptitude Test Battery

GATB profiles of 91 schizophrenic clients were gathered from three sheltered workshops in New Jersey. Job placement information was available for 32 clients who attended Sheltered Workshop B. The following results were obtained:

1. Although ages and years of education between the schizophrenic sample and the general population are comparable, the mean scores on all GATB subparts were lower for the schizophrenic sample compared to the general population. These are reported in Table 47. The largest differences between schizophrenics and normals were on parts 9, 10, 11 and 12. This comparison indicates that the schizophrenic clients performed poorly on all parts of the GATB, particularly those which involve manual or finger dexterity.
2. Tables 48 and 49 compare the means, standard deviations and intercorrelations among GATB aptitude factors for a schizophrenic sample and the general population. Again, schizophrenic clients performed below normals on all factors with the greatest differences on manual and finger dexterity, and the least on clerical perception. Intercorrelations among factors were consistently higher for the schizophrenic sample than for the general population. This means that the individual factor scores were less independent of each other for the schizophrenic sample, than for normals. This suggests that there was some common factor operating in the schizophrenic sample to affect all GATB aptitudes.
3. Numerical aptitude accounts for 84.1% of the variance in general intelligence scores of the GATB. Verbal and spatial aptitude are highly correlated with numerical aptitude. Therefore, V and S scores did not add to the prediction of general intelligence scores, once numerical aptitude scores were entered in the multiple regression equation. The results of this multiple regression are reported in Table 50.
4. A discriminant function analysis of GATB subparts used to predict vocational placement at Sheltered Workshop B is reported in Tables 51 and 52. Assembly was the only part of the GATB that was a significant (.01 level) predictor of employment placement.

Table 43. Frequencies for Length of Time Presently Employed (N=26)

LENGTH OF TIME IN MONTHS	ABSOLUTE FREQUENCY NUMBER OF SUBJECTS
Less than 1	5
1	7
2	3
3	3
4	2
5	1
7	1
12	1
21	1
36	1
60	1

Table 44. Frequency Distribution for Diagnostic Categories in
Interview Sample (N=121)

DIAGNOSIS	RELATIVE FREQUENCY PERCENT
Unspecified	2.5%
Simple	.8%
Catatonic	.8%
Paranoid	27.3%
Acute Schizophrenic Episode	3.3%
Borderline	7.4%
Residual	.8%
Schizo-affective	3.3%
Childhood Schizophrenia	.8%
Chronic Undifferentiated Schizophrenia	40.5%
Manic-Depressive (manic type)	4.1%
Manic-Depressive (depressed type)	4.1%
Schizophrenia in Remission	1.7%
Organic Brain Syndrome (with psychosis)	.8%
Adjustment Reaction to Adolescence	.8%
Manic-Depressive (circular type)	.8%
Acute Psychosis	.8%

Table 45. Summary of Discriminant Function Analysis for Selected
Biographical Variables Used to Predict Employment
Status (N=62)

VARIABLE	WILKS' LAMBDA	SIG.	RAO'S V	SIG.	CHANGE IN V	SIG.
Length of time married	0.96	0.11	2.56	0.11	2.56	0.11
Father living	0.93	0.11	4.65	0.10	2.09	0.15
Self-rated severity of disability	0.90	0.11	6.44	0.09	1.79	0.18

Table 46. Classification Results of Discriminant Function Analysis
for Selected Biographical Variables Used to Predict
Employment Status (N=121)

EMPLOYMENT STATUS	N CASES	PREDICTED GROUP MEMBERSHIP	
		UNEMPLOYED	EMPLOYED
Unemployed	95 100%	31 32.6%	64 67.4%
Employed	26 100%	9 34.6%	17 65.4%
Percent of Cases Classified Correctly			39.67%

Table 47. Means and Standard Deviations of Scores of
Each Part of the GATB for the General Working
Population (N=4,000)* and for a Schizophrenic
Sample (N=66)

GATB TEST	GENERAL POPULATION		SCHIZOPHRENIC SAMPLE	
	MEAN*	STD. DEVIATION*	MEAN	STD. DEVIATION
1 - Name Comparison	46.68	17.89	35.00	14.41
2 - Computation	24.31	7.00	19.64	15.82
3 - Three-Dimensional Space	15.80	6.10	12.64	6.72
4 - Vocabulary	20.14	10.23	15.69	7.87
5 - Tool Matching	30.72	7.41	21.87	8.31
6 - Arithmetic Reasoning	11.02	4.24	8.51	4.42
7 - Form Matching	25.56	7.11	19.19	9.58
8 - Mark Making	69.48	10.32	58.26	20.27
9 - Place	89.80	8.62	73.79	21.88
10 - Turn	100.85	9.65	77.03	24.52
11 - Assemble	28.33	4.56	17.98	6.99
12 - Disassemble	29.51	13.74	20.33	6.88
Age (years)	30.39	9.93	30.33	9.01
Education	10.97	2.57	10.18	2.47

* Taken from Manual for the GATB - Section III (U.S. Department of Labor, 1970)

*Table 48. Means (M), Standard Deviations (S.D.) and
Intercorrelations of Aptitudes (GATB)
Employed Workers, Applicants, Apprentices,
Students and Trainees (N=23,428)

Aptitude	M	S.D.	G	V	N	S	P	Q	K	F
G - Intelligence	100.0	18.5								
V - Verbal Aptitude	99.2	17.3	.84							
N - Numerical Aptitude	97.5	19.1	.86	.67						
S - Spatial Aptitude	101.4	20.0	.74	.46	.51					
P - Form Perception	100.2	19.7	.61	.47	.58	.59				
Q - Clerical Perception	101.8	17.6	.64	.62	.66	.39	.65			
K - Motor Coordination	102.1	18.7	.36	.37	.41	.20	.45	.51		
F - Finger Dexterity	98.7	20.2	.25	.17	.24	.29	.42	.32	.37	
M - Manual Dexterity	103.5	21.4	.19	.10	.21	.21	.37	.26	.46	.52

* Taken from Manual for the GATB - Section III (U.S. Department of Labor, 1970)

Table 49. Means, Standard Deviations and Intercorrelations
of Aptitudes as Measured by the GATB for
Schizophrenic Clients (N=91)

APTITUDE GATB	MEAN	STANDARD DEVIATION	G	V	N	S	P	Q	K	F
G - Intelligence	86.6	24.9								
V - Verbal Aptitude	90.5	22.4	.88							
N - Numerical Aptitude	83.0	25.8	.91	.81						
S - Spatial Aptitude	85.8	25.3	.72	.60	.57					
P - Form Perception	85.6	28.1	.74	.70	.72	.68				
Q - Clerical Perception	96.0	24.6	.74	.79	.81	.61	.81			
K - Motor Coordination	81.7	31.0	.54	.62	.58	.35	.58	.65		
F - Finger Dexterity	55.9	27.1	.59	.56	.60	.46	.67	.62	.71	
M - Manual Dexterity	64.3	32.9	.48	.46	.47	.46	.60	.52	.70	.77

Table 50. Summary of GATB General Intelligence Factor Regressed on
Other GATB Factors (N=87)

GATB FACTORS	MULTIPLE R	R ²	SIMPLE R	BETA
N - Numerical Aptitude	.917	.841	.917	.643
V - Verbal Aptitude	.946	.894	.877	.417
S - Spatial Aptitude	.961	.924	.717	.234
Q - Clerical Aptitude	.973	.946	.739	-.322
F - Form Perception	.974	.948	.746	.092
K - Motor Coordination	.974	.948	.543	-.030
F - Finger Dexterity	.974	.949	.590	.034
M - Manual Dexterity	.974	.949	.484	-.018

Table 51. Summary of Discriminant Function Analysis for GATB
 Parts Used as Predictors of Employment Placement
 (Sheltered Workshop B, N=32)

GATB	WILKS' LAMBDA	SIG.	RAO'S V	SIG.	CHANGE IN V	SIG.
Assemble	0.76	0.00	9.44	0.00	9.44	0.00
Verbal (V)	0.73	0.01	11.01	0.00	1.56	0.21

Table 52. Classification Results of Discriminant Function Analysis
for GATB Parts Used to Predict Employment Placement
(N=60)

GATB	N CASES	PREDICTED GROUP MEMBERSHIP	
		PLACED	NOT PLACED
Placed	13 100%	5 38.5%	8 61.5%
Not Placed	47 100%	6 12.8%	41 87.2%
Percent of Cases Correctly Classified			76.67%

Sheltered Workshop A

The records of 60 schizophrenic clients who attended Sheltered Workshop A were reviewed and the findings were as follows:

1. 55% of the sample were male and 62.5% were under 35 years of age. 85.1% were white, 10.6% black and 4.3% Hispanic. 45% had less than 12 years of education and 6.9% were married. Most of the clients in this sample had been diagnosed as chronic undifferentiated (37.9%) or paranoid schizophrenics (13.8%). This demographic and biographical data is reported in Table 53.
2. The absolute and relative frequencies for the scales used at Sheltered Workshop A are reported in Table 54. With the exceptions of social competency, physical limitations and knowledge of work, all the other scale scores were available for less than 10% of the sample. There were no completed Singer-Graflex Work Samples and no J.E.V.S. Tending Work Samples. Although a limited test of reliability was completed, the small number of scores available on these scales made all other statistical analyses impossible.
3. 10% of the schizophrenic sample completed the program at Workshop A and were placed in competitive jobs. There was insufficient follow-up information.
4. Kuder Richardson reliability coefficients were computed for five of the scales used at Sheltered Workshop A. Social competency (.667) and J.E.V.S. Inspection (.681) were marginally reliable. The other scales were found to be unreliable. The physical limitation scale (.349) would not be expected to be internally consistent, since it assesses different physical disabilities which are unrelated. The reliability coefficients found in Table 55 should be viewed with caution, since case-to-item ratios are low (5:1 is suggested).

Sheltered Workshop B

The records of 60 schizophrenic clients who attended Sheltered Workshop B were reviewed and the following results were obtained:

1. 56.7% of the sample was male and 9.1% were less than 35 years of age. 91.5% were white and 8.5% were black. 33.3% had less than 12 years of education. 3.3% were married. 33.3% were diagnosed as having chronic undifferentiated schizophrenia. These results are reported in Table 57.
2. 21.7% of the schizophrenic sample had completed the workshop program and were placed in competitive jobs. Follow-up information was insufficient to report.
3. Table 57 reports the absolute and relative frequencies of the scales used to assess schizophrenic clients at Workshop B. The Wide Range Achievement Test was given to 28.3% of the schizophrenic sample and this was the most frequently used standardized instrument. The clerical evaluation was used with 30% of the sample and this was the most frequently used unstandardized assessment device. The frequency of scale use was too low to permit further statistical analyses.

Table 53. Frequency Distributions for Selected Demographic Variables of the Schizophrenic Sample at Sheltered Workshop A (N=60)

VARIABLE	RELATIVE FREQUENCY PERCENT	MEAN	S.D.
Sex: male	55.0%		
female	45.0%		
Age: 17-25 years	40.0%	33.9	13.2
26-35 years	21.7%		
36-45 years	13.3%		
46-59 years	25.0%		
Race: White	85.1%		
Black	10.6%		
Hispanic	4.3%		
Education: less than 12 years	45.8%		
graduated high school	35.5%		
vocational training	6.2%		
1-2 years of college	4.2%		
3-4 years of college	8.3%		
more than 4 years of college	0.0%		
Marital Status: single	63.8%		
married	6.9%		
divorced	12.1%		
separated	15.5%		
widowed	1.7%		
Diagnosis: Schizophrenia (unspecified)	20.7%		
Catatonic schizophrenia	3.4%		
Paranoid schizophrenia	13.8%		
Acute schizophrenic episode	6.9%		
Latent schizophrenia	6.9%		
Residual schizophrenia	3.4%		
Schizo-affective	3.4%		
Childhood schizophrenia	3.4%		
Chronic undifferentiated schizophrenia	37.9%		

Table 54. Absolute and Relative Frequencies of Completed Scales
Used with Schizophrenic Clients at Sheltered
Workshop A (N=60)

SCALE	ABSOLUTE FREQUENCY N=60	RELATIVE FREQUENCY PERCENT
Work Tolerance	3	5.0%
Work Habits	4	6.7%
Language	6	10.0%
Social Competency	29	48.3%
Attitude	5	8.3%
Physical Limitations	26	43.3%
Comprehension	4	8.3%
Dexterity	4	6.7%
Relationships	3	5.0%
Knowledge of Work	28	46.7%
Singer - Graflex Work Samples	0	-
J.E.V.S. - Handling Work Samples	2	3.3%
J.E.V.S. - Tending Work Sample	0	-
J.E.V.S. - Classifying Work Sample	4	6.7%
J.E.V.S. - Inspection Work Sample	6	10.0%

Table 55. Kuder Richardson Reliability Coefficients for Scales Used with Schizophrenic Clients at Sheltered Workshop A

SCALE	RELIABILITY COEFFICIENT	N CASES	N ITEMS
Social Competency	.667	29	4
Physical Limitations	.349	26	9
Knowledge of Work	.294	28	6
J.E.V.S. - Classifying	.226	4	8
J.E.V.S. - Inspection	.681	6	4

Table 56. Frequency Distributions for Selected Demographic Variables
of the Schizophrenic Sample at Sheltered Workshop B (N=60)

VARIABLE	RELATIVE FREQUENCY PERCENT	MEAN	S.D.
Sex: male	56.7%		
female	43.3%		
Age: 18-25 years	45.0%	30.2	10.0
26-35 years	35.1%		
36-57 years	20.2%		
Race: White	91.5%		
Black	8.5%		
Education: less than 12 years	33.3%		
graduated high school	41.7%		
vocational training	1.7%		
1-2 years of college	8.3%		
3-4 years of college	11.0%		
more than 4 years of college	3.3%		
Marital Status: single	81.7%		
married	3.3%		
divorced	10.0%		
separated	5.0%		
Diagnosis: Schizophrenia (unspecified)	16.7%		
Paranoid schizophrenia	16.7%		
Acute schizophrenic episode	16.7%		
Latent schizophrenia	8.3%		
Schizoaffective, depressed	8.3%		
Chronic undifferentiated	33.3%		

Table 57. Absolute and Relative Frequencies of Scales Used With
Schizophrenic Clients at Sheltered Workshop B (N=60)

SCALE	ABSOLUTE FREQUENCY N=60	RELATIVE FREQUENCY PERCENT
Production Floor Evaluations	13	21.7%
Clerical Evaluation	18	30.0%
Nurse's Aide Evaluation (HHHA)	3	5.0%
PVE Training - Horticulture Program	15	25.0%
Food Service Progress Report	14	23.3%
Shipping/Receiving - Tool Keeping Program Progress Report	13	21.7%
PVE Retail Sales Program	15	25.0%
Housekeeping/Janitorial Service PVE Report	9	15.0%
Grounds Maintenance Report PVE - WAT skills	14	23.3%
Building Mechanics/Maintenance Report - PVE - WAT skills	12	20.0%
Wechsler Adult Intelligence Scale	16	26.7%
Wide Range Achievement Test (WRAT)	17	28.3%
Purdue Pegboard	5	8.4%
Differential Aptitude Test (DAT)	1	1.7%

Norms

Norms for the chronically mentally ill (81% schizophrenic) were generated using the results of the Vocational Assessment Project. Hypothetical distributions of standard scores were generated for the Career Maturity Inventory (CMI), the General Aptitude Test Battery (GATB) and the Strong Campbell Interest Inventory (SCII). These will be available upon request from the Program Planning and Evaluation Unit of the CMHC of RMS.

D. INTERPRETATION AND DISCUSSION OF FINDINGS

The findings of the Vocational Assessment Project have been described in detail in the previous chapter. Several of these results are particularly important in developing successful rehabilitation programs, and designing a reliable and valid vocational assessment strategy for the chronically mentally ill. A preliminary discussion of these findings follows in the sections below. More complete interpretations of the results of this project will be submitted to professional journals during the next year.

Reliability

One of the most significant results of this project was that an unstandardized questionnaire could be used as a reliable measure of the interests and aptitudes of schizophrenic clients. Despite the fact that the Vocational History Questionnaire was only rated twice, inter-rater reliability coefficients were good for most general occupational themes scored for interests. While aptitude scores on the Vocational History were substantially less reliable, they were encouraging. It is expected that inter-rater reliability could be improved by increasing the number of ratings (to minimize individual rater variance), defining the general occupational themes more clearly, specifying rules for scoring in more detail, and improving rater training.

Kuder Richardson reliability coefficients were used to estimate the internal consistency of the scales studies. These results must be viewed with caution, since in many instances the number of cases does not exceed the number of items on the scale. The recommended ratio is 5 cases to each item. Kuder Richardson reliability coefficients also represent the upper limits of internal consistency estimation. For these reasons, some of the reliability coefficients may be overestimating the reliability of the scale. Four scales were clearly reliable (even given these constraints) with a schizophrenic sample. These were the Work Related Activities Scale, the Interviewer Rating of Cognitive Disorders and the Katz: Activities of Daily Living and Leisure Time Activities. The SCL-90, CMI - Attitude Scales (A-1 and B-1) and CMI - Competence Tests (all parts combined) have fairly high reliability coefficients, but their value is questionable because of the low cases-to-item ratio. The reliability of interviewer ratings in general were high enough for research purposes, but not for general use. The work values scale, Attitudes About Myself and Work was found to be unreliable. However, its reliability could be improved substantially by omitting or substituting certain items. This would make it reliable enough to be used in research. It was not possible to examine the reliability of the GATB because of the large number of missing values. The Rosenberg Self-Esteem Scale had the lowest reliability coefficient of any instrument tested and it was impossible to improve by omitting or substituting items. The DAT (Abstract Reasoning) was also clearly unreliable.

Since reliability is a necessary precondition of validity, no attempt was made to establish the validity of instruments which were found to be clearly unreliable for a schizophrenic sample.

Validity

The construct validity of the Vocational History Questionnaire was firmly

established by factor analytic techniques and the multitrait-multimethod matrix. These are stringent tests of convergent and discriminant validity with criteria which are seldom met by instruments of this type. The Vocational History satisfied most of these criteria on at least four (A, S, I, C) of the six general occupational themes. It seems to have surpassed the SCII in its ability to discriminate among general occupational themes with schizophrenic subjects. It appears that, even under modified conditions, the SCII fails to differentiate a clear pattern of interests for many psychiatrically disabled clients. The intercorrelations among occupational theme scores is very high. Therefore, for many clients, the SCII is useless in identifying occupational interests. Profiles are often flat with consistent responses of like or dislike across most items. For the Vocational History, intercorrelations among occupational theme scores is very low and it appears to have excellent discriminant validity. This was the first systematic attempt to study this instrument. More research should substantially improve the construct validity of this simple questionnaire.

High intercorrelations among GATB aptitude factors also cast doubt on their construct validity for schizophrenic clients. All factor intercorrelations are much higher for the schizophrenic sample than the general population. This suggests a common factor operating in the schizophrenic sample which affects performance on all aptitudes. A high level of test anxiety is one possible explanation which is confirmed by depressed scale scores when compared to the general population. This means that the GATB probably underestimates the aptitudes of schizophrenic clients because of the negative effects of anxiety on performance. This is further supported by the finding of many investigators that schizophrenic subjects score lowest on the finger and manual dexterity factors. If high levels of anxiety interfere with the effective measurement of aptitudes, establishing schizophrenic norms may be an important way to sidestep this problem.

GATB Part 11 - Assemble was a significant (.01 level) predictor of employment placement for schizophrenic clients at Sheltered Workshop B. This is not surprising since much of the work experience offered by sheltered workshops, as well as many of the available placements, require finger dexterity. It is also possible that performance on the finger dexterity factor is associated with another variable (perhaps anxiety level or motivation) and this other variable affects employment placement. It is also not known whether Assemble is associated with placement alone or continued employment, because follow-up information was not included in the reviewed records.

The instrument that had the greatest predictive validity was the Katz. It correctly classified the largest number of employed and unemployed clients (96.6%). Even when work and care of children were eliminated from the analysis, classification results were good (84.3%). The Katz measures general level of functioning. Work is included in the definition of level of functioning, but it also includes those other activities which are associated with living in a normal adult world. Many of these are the prerequisites of employment. The Katz seems to have value in helping to determine when a person is ready to work and as a measure of rehabilitation potential. This instrument can also be used as a simple needs assessment device which can be useful in planning a pre-vocational program. In effect, it indicates some of the activities that can help a person achieve a higher level of functioning or work readiness.

The Work Related Activities Scale was also a significant predictor of employment status. Those who were more involved in vocational behaviors such as applying for job training, attending school or talking about work were significantly more likely to be employed than unemployed. This scale may prove to be a useful measure of motivation to work. It seems to have predictive value and could be used to assess work readiness or rehabilitation potential. Interviewer ratings also appear to have some predictive validity and may be useful in the same ways. Those clients with social interests and investigative aptitude, as measured by the Vocational History, were more likely to be working than other interest or aptitude groups. It is easy to see that a person who likes people and has problem-solving skills would be more employable.

There were several scales which did not prove to be valid predictors of employment status. The SCL-90 subscales were non-significant. Neither the type or level of symptoms was significantly related to employment. This is an interesting finding since current symptom level is supposed to be an important consideration in determining eligibility for disability benefits. Perhaps most clients are supported by relatives and this is not a problem for them. Or perhaps subjective reporting of a client's symptom level by a staff person or clinician for disability benefits is inconsistent with SCL-90 results. It was expected that certain symptoms or a high symptom level would interfere with work and inhibit employment. This does not appear to be the case.

All CMI scales also lacked predictive validity. This can be explained by the fact that employment options are often restricted by a reluctance to hire the psychiatrically disabled. Therefore, career mature persons may choose to remain unemployed and collect disability benefits rather than work at a job which does not allow them to implement their self-concepts.

Biographical data also failed to significantly predict employment status. Therefore, biographical variables were not useful measures of rehabilitation potential.

Norms

Most of the normative comparisons between the psychiatrically disabled sample and the general population yielded expected results. There were a few exceptions.

Mean scores on the CMI Competence Tests were consistently higher than 12th graders and mean scores on the Attitude Scale were consistently lower. A possible explanation is that the Attitude Scale taps a more affective dimension of career maturity and is less accessible to modifications in test administration. The Competence Tests are cognitive and were more easily modified. These modifications in test administration improved the scores of schizophrenic clients on the Competence Test, but had less of an effect on Attitude scores.

The mean scores of schizophrenic subjects on the SCII were very similar to those of normals. However, the standard deviations for schizophrenic males

and females were larger than those for normals on every occupational theme for both sexes. This suggests that although the means are quite similar, the actual interest patterns of the two groups are different. This is supported by the high intercorrelations among theme scores for schizophrenic persons on the SCII which probably indicates a lack of independence and patterning in occupational theme scores.

Frequency Distributions

The Vocational History frequency distribution of interest scores shows that the social, realistic and artistic themes are the areas of highest interest for this psychiatrically disabled sample. The Vocational History frequency distribution of aptitude scores are consistent with these interests. However, performance on the GATB indicates that clerical aptitudes tend to be the highest aptitude areas and finger and manual dexterity are the lowest. If GATB general estimations of aptitude are accurate, there are major conflicts between interests and aptitudes for many schizophrenic clients. It seems that they have high interest in realistic occupations, but poor dexterity to perform in them; and relatively low interest in conventional occupations, but relatively good clerical perception. This is a difficult vocational problem which can significantly affect the motivation to work and employment status.

This discrepancy between interest and aptitudes may also influence the performance of schizophrenic clients at many sheltered workshops. Although many schizophrenic persons appeared to be interested in the type of realistic work offered by many workshops, only ten to twenty percent successfully completed workshop programs and were placed in competitive jobs. In part, this can be attributed to the fact that the low dexterity aptitudes of schizophrenic clients do not permit them to successfully compete in jobs which require these skills. Even within the workshop, most of the available job opportunities involve finger and manual dexterity, and salaries are based on a piece-rate. This often puts schizophrenic clients at a disadvantage, even when they are competing with other disabled clients. This seems to be reflected in the fact that, in the two sheltered workshops studied, twice as many non-schizophrenic (N=60) clients completed the programs offered than schizophrenic clients. The high drop-out rate of schizophrenic clients from vocational programs is a complex problem. One aspect of this problem seems to focus on the conflict between interest and aptitude to perform in these programs. Sheltered workshops were originally conceived to meet the needs of mentally retarded clients. In recent years, the proportion of psychiatrically disabled clients they serve has increased dramatically. The special needs of these clients must be reconsidered in improving vocational programs which take the aptitudes and interests of schizophrenic clients into account.

In order to complete a needs assessment, sheltered workshops and other vocational rehabilitation programs must use consistent record-keeping procedures and standardized assessment techniques. The archival study demonstrated that most assessment techniques were used so infrequently that it was impossible to determine the reliability and validity of the instruments

themselves. The low frequency of scale use also made it almost impossible to use the information they generate for program development and evaluation.

Information concerning the number of jobs held by schizophrenic persons and the length of time presently employed, suggest that most psychiatrically disabled individuals can obtain employment, but few remain employed. The reasons for this are not clear from the present study. It is possible that the career immaturity of schizophrenic clients makes it difficult for them to implement their self-concepts. The schizophrenic process itself (e.g. cognitive disorders) seems to interfere with many aspects of career maturity. The reliable and valid measurement of career maturity and self-esteem with a schizophrenic population must be achieved before this issue can be addressed. It is also possible that schizophrenic clients cannot adjust to the stresses and demands of work. If this is the case, vocational rehabilitation programs must increase their efforts to provide services after clients are placed.

The successful vocational rehabilitation and education of schizophrenic clients is a complex and difficult problem. This preliminary discussion of the findings of the Vocational Assessment Project suggests certain vocational assessment strategies and techniques which were found to be reliable and valid for the chronically mentally ill. These techniques made it possible to identify certain variables which were important in the vocational rehabilitation process and were found to be associated with current employment status. The following section describes the ways in which the results of this study have been implemented. Plans for the dissemination of results are also discussed.

Implementation and Dissemination of Findings

Several implementation strategies were undertaken during the course of the project, and others are planned. One of the main strategies which took place over the last six months included using assessment results to plan vocational interventions for individual clients. This was done at both the community Mental Health Center of Rutgers Medical School and Marlboro Psychiatric Hospital. This proved to be an important way to enlist the cooperation of clients and staff in the project. It also made their investment of time (an average of 8 hours per interview) worthwhile. Feedback based on the results of the assessment, played an important part in the vocational development of many of the clients who participated in the project.

Feedback was given to the primary staff person or clinician for each client who completed the assessment. This involved them in the vocational rehabilitation process and facilitated the development of an individual data-based vocational program for each client. Assessment results sensitized the clinical and rehabilitation staffs to the vocational needs of their clients and encouraged an interdisciplinary exchange around vocational issues. At Marlboro Psychiatric Hospital, feedback was used in individual discharge planning in order to facilitate the return of patients to the community. Since many of these staff persons had long-standing relationships with clients and knew them well, primary staff workers gave feedback directly to their clients.

The staff who received results of the vocational assessment included the Rutgers Community Mental Health Center Habilitation Service staff workers, the Continuing Care Staff of the New Brunswick Central Focus Team, the Edison/Matuchen Community Focus Team, a representative from the Northern Community Focus Team, and several individual therapists. An interdisciplinary team at Marlboro Psychiatric Hospital were also involved in the feedback process. These continuing care staffs usually included psychiatrists, social workers, administrators, psychologists, nurses and rehabilitation counselors.

The project's Co-Director and the vocational assessment interviewers disseminated the results of the vocational assessment interview in meetings with these staff members. These meetings included sessions on orientation, training and specific client results. Orientation sessions described the general objectives of the study and its theoretical underpinnings. Educational meetings focused on understanding the assessment instruments and how the results could be explained to clients and used to facilitate vocational development.

A package of information collected during the vocational assessment interview was given to the staff member responsible for the vocational rehabilitation of each client who participated in the project. The vocational assessment package was also made part of the client's rehabilitation record or hospital chart. This package of information included an introductory letter recommending that the results be used with extreme caution because the instruments should be considered experimental for this population. Also included were a Career Maturity Profile (used to interpret the results of the Career Maturity Inventory -

Attitude Scale and Competence Test), a print out of the results of the Strong Campbell Interest Inventory, a scored SCL-90, the Individual Client Inventory, the Katz: Activities of Daily Living and Leisure Time Activities, the Vocational History, and the general impressions and recommendations of the interviewer. See Appendix II for a sample Vocational Assessment Package.

The focus of the feedback sessions was interviewer impressions and recommendations for each client. The first section of this report included a discussion of the client's general pattern of interests based on data from the Strong Campbell Interest Inventory, the Vocational History and conversations during the vocational assessment interview. Identified patterns of high and low interests were supported by the clients leisure-time/recreational activities and jobs. Following the discussion of interests was a judgment of how important work was to each client. This estimation was based on the survey "Attitudes About Myself and Work", answers to questions concerning work-related activities, the degree of interest in their current job responsibilities, and the relationship between the client's short and/or long term goals and his work or career issues. In the next section of impressions and recommendations, scores on the Career Maturity Inventory - Attitude Scale and Competence Test were discussed. High scores indicated areas of strength and low scores identified a client's needs to different career development skills. Methods were discussed to vocationally educate clients in these identified areas. Limitations regarding employment were also mentioned. The limitations were based on problems with reading and/or writing, memory and concentration problems and low tolerance for a high-pressure or fast-paced work environment. Limitations were also noted for clients who had a high symptom level as measured by the SCL-90. The last section included recommendations and suggested activities for each client. These suggestions encouraged exploration of interests through volunteer work, the Transitional Employment Program (especially if the client needed assistance in developing work adjustment skills), and part or full-time employment. Training and/or apprenticeship programs were often suggested for those clients interested in a skilled occupation. Leisure time and recreational activities were recommended to build self confidence and motivation for vocational planning. In many instances, clients were interested in and ready for part or full-time course offerings. These educational interests varied and included: courses to pass the GED exam, adult school, community college, 4-year college, and graduate school courses. Suggestions were made to collect career information so that clients could better understand themselves in relation to occupational alternatives. Recommended activities included: reading about careers, talking to people employed in occupations of interest, visiting places of employment and learning about training/educational requirements.

Staff response to the implemented feedback activities was favorable. The format of the feedback sessions was conducive to a free exchange of ideas pertinent to each client's vocational planning. The staff indicated that these suggestions were useful and often implemented. There was agreement among many staff workers that clients became more motivated to engage in work related activities as a result of participation in the Vocational Assessment Project. Clients seemed to spend more time talking with their staff workers about jobs, doing volunteer work at the Club or working in the Transitional Employment Program.

Due to the favorable response of administration and staff to the Vocational Assessment Project, project staff has been consulted to improve and develop vocational programs for continuing care clients at the Community Mental Health Center of Rutgers Medical School.

In order to further disseminate project findings, copies of the final report will be sent to those individuals and groups who have cooperated in this project, and other interested agencies. Articles concerning results and implications of the study will be written and submitted for publication to appropriate journals. Plans will be developed to sponsor training programs and workshops, and attend professional conferences to present the results of the Vocational Assessment Project to others who are interested in the vocational rehabilitation of the chronically mentally ill.

Both of the project consultants are directly involved in counselor education as faculty members in the Counseling Psychology Division of the Graduate School of Education, Rutgers University. Students in these classes have already been involved in this project both directly as staff, and indirectly as advisors who assisted in the development of a scoring system for the Vocational History Questionnaire. The findings of this study will continue to be a part of this counselor education program.

Since it was not possible to analyze all the data collected from the Vocational Assessment Project, analyses will continue over the next few years. This information will continue to be disseminated through articles, professional conferences and in-service programs.

E. CONCLUSIONS AND RECOMMENDATIONS

The findings of the Vocational Assessment Project have been helpful in understanding the vocational development of schizophrenic persons and suggest several ways that vocational assessment process and rehabilitation programs could be improved.

Recommendations

1. The Vocational History Questionnaire is recommended to assess the interests and aptitudes of schizophrenic clients. Although more research is required to improve the reliability and validity of some occupational themes, it can be extremely useful in the vocational assessment process.
2. The use of the Katz Social Adjustment Scale is recommended as a measure of work readiness and rehabilitation potential. Items on the Katz can be helpful in planning individual vocational programs to improve levels of functioning and facilitate vocational development.
3. The Work Related Activities Scale is also a valid and reliable measure of motivation which can be used to predict rehabilitation outcome and work readiness.
4. It is recommended that the GATB be used with extreme caution since it seems to have limited construct validity. It probably underestimates the aptitudes of schizophrenic clients.
5. For most schizophrenic clients, the SCII does not discriminate occupational interest patterns. For this reason, its use is not recommended.
6. Unless other studies can establish the reliability of the DAT - Abstract Reasoning, its use with schizophrenic clients is not recommended.
7. Interviewer rating forms can be useful vocational instruments, but more research is needed to improve their reliability and validity.
8. Vocational rehabilitation programs must use consistent record-keeping procedures and uniform assessment techniques in order to determine the reliability and validity of the assessment process. A uniform data base also makes it possible to develop and evaluate vocational programs based on client needs.
9. Valid and reliable measures of career maturity and self-esteem must be developed in order to assess the effects of these variables on the vocational rehabilitation of schizophrenic clients.
10. There is a need to improve rehabilitation services after a client is employed. Schizophrenic clients appear to be able to obtain employment, but do not remain employed. Follow-up services are essential.

Conclusions

The terms rehabilitation and education have been used interchangeably in this project. Because of the developmental lag experienced by the chronically mentally ill, for the most part, rehabilitation is a learning process.

Both Super's theory and prior research suggest that career maturity and self-esteem are important variables in the vocational education/rehabilitation process. However, the instruments used to measure these variables were found to be unreliable. Therefore, Super's vocational theory remains untested with a schizophrenic population. Future research must determine valid and reliable ways to measure career maturity and self esteem with the chronically mentally ill.

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APPENDIX I

The following materials were removed from Appendix I due to copyright:

Crites Career Maturity Inventory
Strong-Campbell Interest Inventory
Differential Attitude Test

RMHC Vocational History for _____

A. School History

1. subjects I remember taking (list at least 5)
2. things I liked about each one
3. things I disliked about each one
4. what I did best in and why
5. what I had the most trouble with and why

B. Work History

1. jobs I have held (up to 5)
2. things I liked about each one
3. things I disliked about each one
4. what I did best and why
5. what I had the most trouble with and why

C. Leisure time activities I have done in spare time

- | | | |
|----|--|-----------------------|
| 1. | past (list 5) | present (list 5) |
| | (e.g., extra curricular
activities in school) | (e.g., with the Club) |
| 2. | things I liked about each one and why | |
| 3. | things I disliked about each one and why | |
| 4. | what I did best and why | |
| 5. | what I had the most trouble with and why | |

D. Home/Family Activities

1. things I do around the house/with family
2. things I like about each one and why
3. things I disliked about each one and why
4. what I do best and why
5. what I have the most trouble with and why

E. Other (e.g., ideal, occupations, activities)

RMHC Vocational History for _____

A. School history:

1. Subjects	2. Liked	3. Disliked
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

4. What I did best _____

why _____

5. Trouble with _____

why _____

B. Work history:

1. Jobs	2. Liked	3. Disliked
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

4. What I did best _____

why _____

5. Trouble with _____

why _____

C. Leisure time (past):

1. Activities

2. Liked

3. Disliked

_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

4. What I did best _____

why _____

5. Trouble with _____

why _____

C. Leisure time (present):

1. Activities

2. Liked

3. Disliked

_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

4. What I did best _____

why _____

5. Trouble with _____

why _____

D. Home/Family Activities:

1. Things I do with family

2. Liked

3. Disliked

_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

4. What I did best _____

why _____

5. Trouble with _____

why _____

E. Vocational/Educational Plans:

1. My short term vocational/educational plans are _____

2. My long term vocational/educational plans are _____

INSTRUCTIONS:

In order to better plan our work with you, we would like to know about your everyday activities and hobbies. On this page, Activities of Daily Living, please check one column for each activity.

On the next page, Leisure Time Activities, check one column indicating how often you engage in each activity and check column 4 if you would like to be doing more of the particular activity.

ACTIVITIES OF DAILY LIVING

	1 am not doing	2 am doing some	3 am doing regularly	0 does not apply
Help with household chores	_____	_____	_____	_____
Visit friends	_____	_____	_____	_____
Visit relatives	_____	_____	_____	_____
Entertain friends at home	_____	_____	_____	_____
Dress and take care of myself	_____	_____	_____	_____
Help with the family budgeting	_____	_____	_____	_____
Remember to do important things on time	_____	_____	_____	_____
Get along with family members	_____	_____	_____	_____
Go to parties and other social activities	_____	_____	_____	_____
Get along with neighbors	_____	_____	_____	_____
Help with family shopping	_____	_____	_____	_____
Help in the care and training of children	_____	_____	_____	_____
Go to church	_____	_____	_____	_____
Take up hobbies	_____	_____	_____	_____
Work	_____	_____	_____	_____
Support the family	_____	_____	_____	_____

LEISURE TIME ACTIVITIES

	1 frequently	2 sometimes	3 practically never	0 does not apply	4 <u>would like to do more of this</u>
Work in and around house	_____	_____	_____	_____	_____
Work in garden or yard	_____	_____	_____	_____	_____
Work on some hobby	_____	_____	_____	_____	_____
Listen to the radio	_____	_____	_____	_____	_____
Watch television	_____	_____	_____	_____	_____
Write letters.	_____	_____	_____	_____	_____
Go to the movies	_____	_____	_____	_____	_____
Attend lectures, theater . . .	_____	_____	_____	_____	_____
Attend club, lodge, other meetings	_____	_____	_____	_____	_____
Shop	_____	_____	_____	_____	_____
Take part in community or church work	_____	_____	_____	_____	_____
Bowl or other sports	_____	_____	_____	_____	_____
Play cards or other table games	_____	_____	_____	_____	_____
Take rides	_____	_____	_____	_____	_____
Visit friends	_____	_____	_____	_____	_____
Entertain friends	_____	_____	_____	_____	_____
Sew, crochet, or knit	_____	_____	_____	_____	_____
Read	_____	_____	_____	_____	_____
Go to the library	_____	_____	_____	_____	_____
Just sit and think	_____	_____	_____	_____	_____
Take courses at home	_____	_____	_____	_____	_____
Go to school	_____	_____	_____	_____	_____
Other (what?)	_____	_____	_____	_____	_____

INSTRUCTIONS

Below is a list of problems and complaints that people sometimes have. Read each carefully, and select one of the numbered descriptors that best describes HOW MUCH DISCOMFORT THAT PROBLEM HAS CAUSED YOU DURING THE PAST WEEK INCLUDING TODAY. Place that number in the open block to the right of the problem. Do not skip items, and print your number clearly. If you change your mind, erase your first number completely. Read the example below before beginning, and if you have any questions please ask the technician.

<u>EXAMPLE</u>	<u>Descriptors</u>		<u>Descriptors</u>
HOW MUCH WERE YOU DISTRESSED BY:	0 Not at all	HOW MUCH WERE YOU DISTRESSED BY:	0 Not at all
	1 A little bit		1 A little bit
	2 Moderately		2 Moderately
	3 Quite a bit		3 Quite a bit
	4 Extremely		4 Extremely
<u>EX.</u> Body Aches <u>Ans.</u> <u>3</u>			
1. Headaches	___	18. Feeling that most people cannot be trusted	___
2. Nervousness or shaking inside . .	___	19. Poor appetite	___
3. Repeated unpleasant thoughts that won't leave your mind . . .	___	20. Crying easily	___
4. Faintness or dizziness	___	21. Feeling shy or uneasy with the opposite sex	___
5. Loss of sexual interest or pleasure	___	22. Feelings of being trapped or caught	___
6. Feeling critical of others . . .	___	23. Suddenly scared for no reason .	___
7. The idea that someone else can control your thoughts	___	24. Temper outbursts that you could not control	___
8. Feeling others are to blame for most of your troubles	___	25. Feeling afraid to go out of your house alone	___
9. Trouble remembering things . . .	___	26. Blaming yourself for things . .	___
10. Worried about sloppiness or carelessness	___	27. Pains in lower back	___
11. Feeling easily annoyed or irritated	___	28. Feeling blocked in getting things done	___
12. Pains in heart or chest	___	29. Feeling lonely	___
13. Feeling afraid in open spaces or on the streets	___	30. Feeling blue	___
14. Feeling low in energy or slowed down	___	31. Worrying too much about things.	___
15. Thoughts of ending your life . .	___	32. Feeling no interest in things .	___
16. Hearing voices that other people do not hear	___	33. Feeling fearful	___
17. Trembling	___	34. Your feelings being easily hurt	___
		35. Other people being aware of your private thoughts	___

HOW MUCH WERE YOU DISTRESSED BY:	Descriptors	HOW MUCH WERE YOU DISTRESSED BY:	Descriptors
	0 Not at all		0 Not at all
	1 A little bit		1 A little bit
	2 Moderately		2 Moderately
	3 Quite a bit		3 Quite a bit
	4 Extremely		4 Extremely
36. Feeling others do not understand you or are unsympathetic	_____	59. Thoughts of death or dying	_____
37. Feeling that people are un- friendly or dislike you	_____	60. Overeating	_____
38. Having to do things very slowly to insure correctness	_____	61. Feeling uneasy when people are watching or talking about you . .	_____
39. Heart pounding or racing	_____	62. Having thoughts that are not your own	_____
40. Nausea or upset stomach	_____	63. Having urges to beat, injure or harm someone	_____
41. Feeling inferior to others . . .	_____	64. Awakening in the early morning . .	_____
42. Soreness of your muscles . . .	_____	65. Having to repeat the same actions such as touching, counting washing.	_____
43. Feeling that you are watched or talked about by others	_____	66. Sleep that is restless or disturbed	_____
44. Trouble falling asleep	_____	67. Having urges to break or smash things	_____
45. Having to check and doublecheck what you do	_____	68. Having ideas or beliefs that others do not share	_____
46. Difficulty making decisions. . .	_____	69. Feeling very self-conscious with others	_____
47. Feeling afraid to travel on buses, subways, or trains	_____	70. Feeling uneasy in crowds, such as shopping or at a movie	_____
48. Trouble getting your breath . .	_____	71. Feeling everything is an effort .	_____
49. Hot or cold spells	_____	72. Spells of terror or panic	_____
50. Having to avoid certain things, places, or activities because they frighten you	_____	73. Feeling uncomfortable about eating or drinking in public.	_____
51. Your mind going blank	_____	74. Getting into frequent arguments .	_____
52. Numbness or tingling in parts of your body	_____	75. Feeling nervous when you are left alone	_____
53. A lump in your throat	_____	76. Others not giving you proper credit for your achievements . . .	_____
54. Feeling hopeless about the future	_____	77. Feeling lonely even when you are with people	_____
55. Trouble concentrating	_____	78. Feeling so restless you couldn't sit still	_____
56. Feeling weak in parts of your body	_____	79. Feelings of worthlessness	_____
57. Feeling tense or keyed up . . .	_____		
58. Heavy feelings in your arms or legs	_____		

HOW MUCH WERE YOU DISTRESSED BY:	<u>Descriptors</u> 0 Not at all 1 A little bit 2 Moderately 3 Quite a bit 4 Extremely	HOW MUCH WERE YOU DISTRESSED BY:	<u>Descriptors</u> 0 Not at all 1 A little bit 2 Moderately 3 Quite a bit 4 Extremely
80. The feeling that something bad is going to happen to you	_____	86. Thoughts and images of a frightening nature	_____
81. Shouting or throwing things	_____	87. The idea that something serious is wrong with your body	_____
82. Feeling afraid you will faint in public	_____	88. Never feeling close to another person	_____
83. Feeling that people will take advantage of you if you let them	_____	89. Feelings of guilt	_____
84. Having thoughts about sex that bother you a lot	_____	90. The idea that something is wrong with your mind	_____
85. The idea that you should be punished for your sins	_____		

CONTINUING CARE - INDIVIDUAL CLIENT INVENTORY

INSTRUCTIONS: This form is to be completed by the individual client. If there is not enough space to answer the questions, complete on page 4, taking care to begin with the number of the question being answered.

Name _____ Date _____ Sex _____ Age _____ Birthdate ____/____/____

Address _____ Telephone _____

With whom do you live? Self _____ Parents _____ ^{Wife} Husband _____ Child(ren) _____ Friend(s) _____
SERV _____ Other (specify) _____

Marital Status Married _____ How long? _____ Single _____ Divorced _____ Date _____
Separated _____ Date _____
Widowed _____ Date _____

How many children do you have? _____ Give names and ages: _____ Age _____
_____, ____; _____, ____; _____, ____;
_____, ____; _____, ____; _____, ____;

Highest grade completed _____ Religion _____

What is the chief problem that brings you for help?

Please rate the severity of your problem. CIRCLE ONLY ONE

No Problem	Mildly Upsetting	Moderately Severe	Very Severe	Unable To Function
---------------	---------------------	----------------------	----------------	-----------------------

What specific changes do you wish regarding your chief problem?

Please list any helping agency or individual with whom you have had contact in the past six months. (Include Welfare, AA or Alanon, School or other counselors, family service agency, vocational service, clinic, hospital, et cetera.)

MEDICAL HISTORY

Page 2

Name of Family Doctor _____ Address _____

Telephone _____

Date and result of most recent physical exam: _____

Do you presently have any concerns about your physical health? If so, what are they?

Are you currently receiving treatment for any medical problems? If so, what?

Please list all medicines you take currently, including aspirin, sleeping pills, tranquilizers, etc. If drugs are prescription, please list who prescribed them.

Please indicate extent of your use of alcohol, caffeine-containing compounds (coffee, coke, and other sodas) and street drugs.

Are you allergic to any medications? If so, what? _____

Other allergies? _____

If you are a woman of child-bearing age, do you use any method of contraception? If so, what kind?

FAMILY DATA

Father's name _____

living _____ age _____ or deceased _____ Your age at time of his death _____

occupation _____ racial/ethnic background _____

any illnesses? _____

Mother's name _____

living _____ age _____ or deceased _____ Your age at time of her death _____

occupation _____ racial/ethnic background _____

any illnesses? _____

How many brothers and sisters do you have? _____ Give names and ages: _____

Age _____; _____; _____; _____; _____; _____; _____

_____; _____; _____; _____; _____; _____; _____

Please list any illnesses of your brothers or sisters: _____

Have any close family members or friends died? Please indicate for each:

Name _____ Relationship to you _____

Date of death _____ Cause of death _____

Name _____ Relationship to you _____

Date of death _____ Cause of death _____

Has anyone in your family ever had the following? (Please include parents, grandparents, aunts, uncles, brothers, sisters, and children.)

	Relationship	Date	Their age at that time	Did they have treatment?
Depression				
Suicide				
Seizures				
Alcoholism				
Psychosis - Nervous Breakdown				
Retardation				

JOB HISTORY

Are you working now? _____ Type of work: _____

How long at present job? _____ Name and address of employer: _____

Do you enjoy your work? _____ Very much _____ Generally _____ Occasionally _____ Never _____

If you stopped working, when _____ and why? _____

How many jobs have you had in the past five years? _____

OTHER INFORMATION

How many moves have you made in the past five years? _____ Most recent move _____

Have you been in trouble with the police? _____ Have you been arrested? _____

Do you have any legal charges pending now? _____

Do you have a driver's license? _____ How will you get to your appointments here? _____

Who are the most important people in your life now? _____

What two people do you most want to be like? _____

See Page 5 for Previous Psychiatric Treatment.

PREVIOUS PSYCHIATRIC TREATMENT
(Begin with earliest date)

Page 5

Date or Your Age	Type (E.g., Inpatient or Outpatient; Individual, Group, Marital, Family)	Name of Hospital, Clinic or Therapist	Length of Time	Medication	How Helpful Was This Treatment?

How do you think we can best help you at the present time?

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NAME: _____

DATE: _____

I. Retention

1. Ask to repeat immediately.
2. Ask again at the end of session.

bird - tree - 69 Glenwood Avenue

II. Interpretation of Proverbs

1. A bird in the hand is worth two in the bush.
2. People who live in glass houses shouldn't throw stones.
3. A rolling stone gathers no moss.
4. Don't change horses in mid stream.

III. Serial 3's/7's

Count backward from 100 by 3/7.

IV. Oriented

Time (day and date):

Place (where are you now?):

Person (evaluator's name):

V. Similarities

How are these alike?

Apple/orange

Cat/dog

VI. Digit Memory Span

Repeat forward

3-1-9
4-7-3-8
6-1-2-5-7
9-4-6-3-1-5
8-2-7-5-9-4-3
5-8-2-6-1-7-9-4

Repeat backward

7-4-5
1-9-2-7
8-5-3-1-6
5-9-6-2-7-4
3-2-5-7-9-6-1
2-8-3-1-4-7-9-5

VII. Ask these retention items from #I.

- I. Which of the following work related activities have you done in the past six months? How often?

<u>Activity</u>	<u>Frequency</u>
1. Vocational counseling	
2. Vocational testing	
3. Consulted an employment agency	
4. Read employment "want" ads	
5. Had job interview	
6. Phoned about a job placement	
7. Asked about a job placement	
8. Worked in the Transitional Employment Program (TEP)	
9. Held a temporary job	
10. Volunteer work	
11. Sought occupational information	
12. Talked to my therapist about working	
13. Talked to a friend about working	
14. Applied for a job	
15. Applied for a job training	
16. Attended school	
17. Other: (explain)	
18. Other: (explain)	

II. Visualize the things that make work difficult for you as a stone wall standing in front of you.

1 ft. 2 ft. 3 ft. 4 ft. 5 ft. 6 ft. 7 ft. 8 ft. 9 ft. 10 ft. ^{more} than 10 ft.

1. How high is the wall?
2. Can you get over the wall alone?
3. Can you get over the wall with help?

ATTITUDES ABOUT MYSELF AND WORK

CIRCLE THE ANSWER THAT MATCHES YOUR OPINION

1. Most things in life are more important than work.

1. strongly agree 2. agree 3. disagree 4. strongly disagree

2. I would probably keep working even if I did not need the money.

1. strongly agree 2. agree 3. disagree 4. strongly disagree

3. I usually do not enjoy working.

1. strongly agree 2. agree 3. disagree 4. strongly disagree

4. Work is only a small part of who I am.

1. strongly agree 2. agree 3. disagree 4. strongly disagree

5. I feel better about myself when I am employed than when I am unemployed.

1. strongly agree 2. agree 3. disagree 4. strongly disagree

6. I think that the things which make work difficult for me are impossible to overcome.

1. strongly agree 2. agree 3. disagree 4. strongly disagree

7. Work can be one of the most satisfying things in life.

1. strongly agree 2. agree 3. disagree 4. strongly disagree

8. Work is a meaningful way to express myself.

1. strongly agree 2. agree 3. disagree 4. strongly disagree

9. Most of the time, I would avoid working if I could.

1. strongly agree 2. agree 3. disagree 4. strongly disagree

10. I have a great deal of respect for people who are good at their jobs.

1. strongly agree 2. agree 3. disagree 4. strongly disagree

ATTITUDES ABOUT MYSELF

PLEASE CIRCLE THE ANSWER THAT MATCHES YOUR OPINION

1. I feel that I am a person of worth, at least on an equal plane with others.
1. strongly agree 2. agree 3. disagree 4. strongly disagree
2. I feel that I have a number of good qualities.
1. strongly agree 2. agree 3. disagree 4. strongly disagree
3. All in all, I am inclined to feel I am a failure.
1. strongly agree 2. agree 3. disagree 4. strongly disagree
4. I am able to do things as well as most people.
1. strongly agree 2. agree 3. disagree 4. strongly disagree
5. I feel I do not have much to be proud of.
1. strongly agree 2. agree 3. disagree 4. strongly disagree
6. I take a positive attitude toward myself.
1. strongly agree 2. agree 3. disagree 4. strongly disagree
7. On the whole, I am satisfied with myself.
1. strongly agree 2. agree 3. disagree 4. strongly disagree
8. I wish I could have more respect for myself.
1. strongly agree 2. agree 3. disagree 4. strongly disagree
9. I certainly feel useless at times.
1. strongly agree 2. agree 3. disagree 4. strongly disagree
10. At times I think I am no good at all.
1. strongly agree 2. agree 3. disagree 4. strongly disagree

INTERVIEWER OBSERVATION & EVALUATION

Client _____

Interviewer _____

Date _____

COGNITION

___ overinclusion	___ blocking
___ underinclusion	___ failure to habituate
___ loose associations	___ fragmentation of thought
___ clang associations	___ flight of ideas
___ tangential associations	___ impaired concept of causality
___ circumstantial thinking	___ restriction of psychotemporal field

DEPERSONALIZATION

OTHER

___ impairment of body concept	___ anhedonia
___ confuses self with others	___ ambivalence
___ inaccurate self knowledge	___ autism

PERCEPTION

___ delusions	___ grandiose	___ paranoid	
___ hallucinations	___ auditory	___ visual	___ other

AFFECT

___ anxious	___ sad	___ silly	___ bland
___ hopeless	___ suspicious	___ stable	___ angry
___ irritable	___ inappropriate	___ labile	
___ appropriate	___ arrogant	___ sullen	

MOOD

___ normal	___ cheerful
___ depressed (circle one: mild, moderate, severe)	___ elated (circle one: mild, moderate, extreme)

MEMORY

Recent: ___ intact	___ impaired
Remote: ___ intact	___ impaired

MODIFICATIONS

Client _____ Interviewer _____

Indicate the modifications used during the complete assessment.

1. _____ repeated directions whenever necessary
2. _____ client directed to read questions/answers aloud
3. _____ questions/answers read aloud to client
4. _____ client directed to re-read aloud
5. _____ client directed to re-read silently
6. _____ provided definition of terms
7. _____ questions/answers made more concrete with the use of examples
8. _____ reinforcement of adaptive "test-taking" behavior
9. _____ client asked to explain reasoning from question to response and corrected illogical thinking
10. _____ include parts of question/answer that client failed to include
11. _____ sorted out and excluded thinking unrelated to question and answer
12. _____ strengthened logical connections among thoughts
13. _____ clarified causal connections
14. _____ repeated or rephrased logical progression of thoughts
15. _____ separated fantasy from reality
16. _____ frequently refocused on task
17. _____ questioned to make responses more specific
18. _____ questioned to make responses more general
19. _____ directed to eliminate incorrect responses
20. _____ questioned infrequent response patterns and redirected
21. _____ other, explain:

SEMANTIC DIFFERENTIAL
INTERVIEWER RATING

Client _____ Interviewer's Initials _____

Put a check on the line sections that best describes how you feel about this client on the concept to be rated.

	very closely related	closely related	slightly related	unrelated or neutral	slightly related	closely related	very closely related	
Dependent	_____	_____	_____	_____	_____	_____	_____	Independent
Successful	_____	_____	_____	_____	_____	_____	_____	Unsuccessful
Task Oriented	_____	_____	_____	_____	_____	_____	_____	Pleasure Orient
Vocationally Uninvolved	_____	_____	_____	_____	_____	_____	_____	Vocationally Involved
Able to plan	_____	_____	_____	_____	_____	_____	_____	Unable to plan
Occupationally Informed	_____	_____	_____	_____	_____	_____	_____	Occupationally Uninformed
Copes Poorly	_____	_____	_____	_____	_____	_____	_____	Copes Well
Good Decision Maker	_____	_____	_____	_____	_____	_____	_____	Poor Decision Maker
Career Immature	_____	_____	_____	_____	_____	_____	_____	Career Mature
High Self-Esteem	_____	_____	_____	_____	_____	_____	_____	Low Self-Esteem
Motivated	_____	_____	_____	_____	_____	_____	_____	Unmotivated
Cognitively Impaired	_____	_____	_____	_____	_____	_____	_____	Cognitively Unimpaired
Unable	_____	_____	_____	_____	_____	_____	_____	Able
Interested	_____	_____	_____	_____	_____	_____	_____	Uninterested
Active	_____	_____	_____	_____	_____	_____	_____	Passive
Disliked	_____	_____	_____	_____	_____	_____	_____	Liked
Unemployable	_____	_____	_____	_____	_____	_____	_____	Employable

Completed Assessment Instruments

- ☐ 1. Information Sheet (follow-up contacts)
- ☐ 2. Vocational History Questionnaire
- ☐ 3. Career Maturity Inventory - Attitude Scale)
- ☐ 4. Career Maturity Inventory - Competence Test) CMI answer sheet
 - ☐ Part 1 ☐ Part 4
 - ☐ Part 2 ☐ Part 5
 - ☐ Part 3
- ☐ 5. Strong Campbell Interest Inventory plus answer sheet
- ☐ 6. Katz - Activities of Daily Living/Leisure Time Activities
- ☐ 7. SCL-90
- ☐ 8. Individual Client Inventory
- ☐ 9. Mental Status Form
- ☐ 10. Motivational Measures
 - ☐ Work Related Activities/"The Wall"
 - ☐ Attitudes About Myself & Work
- ☐ 11. Rosenberg Self-Esteem Scale
- ☐ 12. Differential Aptitude Test plus answer sheet
 - ☐ Verbal Reasoning ☐ Mechanical Reasoning
 - ☐ Numerical Ability ☐ Space Relations
 - ☐ Abstract Reasoning ☐ Spelling
 - ☐ Clerical Speed & Accuracy ☐ Language Usage
- ☐ 13. General Aptitude Test Battery plus answer sheet
 - ☐ Part 1 Name Comparison ☐ Part 7 Form Matching
 - ☐ Part 2 Computation ☐ Part 8 Mark Making
 - ☐ Part 3 Three-dimensional space ☐ Part 9 Place
 - ☐ Part 4 Vocabulary ☐ Part 10 Turn
 - ☐ Part 5 Tool Matching ☐ Part 11 Assemble
 - ☐ Part 6 Arithmetic Reasoning ☐ Part 12 Disassemble
- ☐ 14. Interviewer Rating Scale

APPENDIX II

COLLEGE OF MEDICINE AND DENTISTRY OF NEW JERSEY



MEMORANDUM

TO: All users of the Vocational Assessment Package

DATE: 3/18/80

FROM: Jean Ciardiello
Program Planning and Evaluation

SUBJECT: Vocational Assessments

Enclosed are the results of a vocational assessment for a client who has participated in the Vocational Assessment Project. The basic objective of this research is to establish the validity and reliability of vocational instruments for schizophrenic persons. There is very little existing research to support their use with a schizophrenic population. Therefore, the results of this vocational assessment should be used with extreme caution. They are based on instruments which should still be considered experimental for this population. Results should be viewed as hypothetical and should be used very cautiously in decision making.

If you have any questions concerning these vocational assessment results or the Vocational Assessment Project, I may be reached at ext. 4353 or room B-141.

Staff Worker:
Date: May 13, 1980

Interviewer: Sue Hays
Vocational Assessment Project

IMPRESSIONS AND RECOMMENDATIONS

Although Peter tended to respond "Like" to most items on the Strong Campbell Interest Inventory, there were several interest areas which seemed consistent from the Strong Campbell Interest Inventory, Vocational History and our conversations during the assessment. These areas include music ("listen to music ... radio ... sing with radio"), dancing ("I'd like to be a professional dancer ... dancing teacher"), nature activities ("like landscape gardening ... florist ... farmer-earthly/sense of unity ... "), writing - ("liked English ... freedom of expression in writing ... free-lance writer"), public speaking ("was in a debate group - liked it - challenge") and law/politics ("would like to be a lawyer").

Jobs that Peter has especially liked include driving for the Club ("I had responsibility ... mastered it to the hilt ... an accomplishment"), deliveries for a drug store ("liked to drive") and his current TEP job at Alexanders as a stock room clerk. He indicated preferences for work which included doing both physical and mental activities, having some part of the job outdoors, being his "own boss" and dealing with things. He expressed dislike for the business/technical fields (i.e. advertising, sales, computer work, merchandising, accounting), work with children, teaching, athletics and work requiring knowledge of mathematics.

Peter's high scores on the SCL-90 support several limitations regarding employment which the interviewer observed and discussed during the assessment. These limitations include Peter not liking to work under pressure ("inability to cope with pressure ... anxiety producing") and being easily distracted from tasks he was working on ("that damn typewriter (in office next door) ... drives me up the wall ... I need quiet ... minimal distraction ... can't concentrate ... really bothers me."). Other limitations include Peter's often expressed anger (hit wall when noise of typewriter/people talking disturbed him - "What are they having - a coffee klatch?") and his general state of anxiety ("I had an anxiety attack at work yesterday and I needed to take a valium."). Peter also had problems with his handwriting ("it's probably psychosomatic") and preferred that the interviewer record his responses to survey and questionnaire items in the Vocational Assessment Project. He expressed interest in getting help to "work on my neurological problem ... to correct my writing deficiency."

A high score on the paranoid ideation scale of the SCL-90 seemed to be validated by the ideas Peter expressed during the assessment interview - "Were people in the next room talking about me? ... My doctor said she could understand that I think people are talking about me - but often what I hear is not real ..." These thoughts might present problems for Peter to deal with in terms of interpersonal relationships in a job experience - especially with co-workers and supervisors.

Further work limitations for Peter would be his low tolerance to tasks which he finds difficult/frustrating. He had little tolerance in taking the

Differential Aptitude Test - Abstract Reasoning and answered only 18 out of 50 becoming frustrated and saying "I can't tolerate any more." It would be important for Peter to have a job experience which would not involve too many difficult situations/tasks Peter would have to deal with at once.

Based on his responses to Attitudes about Myself and Work, Work related Activities and his current TEP job experience ("it gives me the biggest high"), Peter seems to consider work as being very important to him. His short term goals included "... full-time job I could swing on my own ... more money ... explore myself more - career wise and educationally." His long term goals included "... make work like a unit ... 2-3 years school with career related area." These would also indicate that work is important to Peter now and in the future.

Although Peter states that work is very important to him, due to the stated limitations supported by the SCL-90 and his behavior during the Vocational Assessment Project, it may be necessary for Peter to pace himself and not take on too much at once. Completing his current TEP job will be important for Peter to develop work adjustment skills including getting along with co-workers/supervisors, dealing with his anger and learning to complete his job assignments with a limited amount of anxiety/pressure. Further options might include assistance in helping Peter "explore myself more - career-wise and educationally," by exploring his interest areas and possible part time job experiences and/or courses related to those interests. He stated that he may want another TEP job on completion of his present position, to continue to work on work adjustment skills. He would like the position/job to be related to some of his interest areas such as doing outdoor maintenance work, work in the florist shop/vegetable garden, landscaping and carpentry work. In addition, recreational activities/educational course offerings could also be explored with Peter including music, dance, creative writing and crafts.

Sue Hays

Sue Hays, M.S.
Program Planning and Evaluation

RMHC Vocational History for _____

A. School history: grad. high School - 1973

- | | | |
|--|--|--|
| 1. Subjects | 2. Liked | 3. Disliked |
| <u>General</u>
<u>Science courses</u>
<u>(Bio. Chem)</u>
<u>English</u> | - great teacher
- <u>involving / curious</u>
<u>about</u>
<u>freedom of expression -</u> | <u>math</u>
<u>teacher - competitive</u> |
| <u>Racial / Cultural</u>
<u>minorities</u> (acc.) | coll. "writing -"
"eating it up" - ability
"to relate in my own way"
"analytical side"
"proof / conlars"
"didn't apply
myself" | <u>nothing</u>
<u>teacher -</u> "corporal punish"
"sensititis" - apathetic |
| <u>Geometry</u>
<u>Algebra II</u> | | |
| 4. What I did best | <u>Racial / Cultural minorities /</u>
<u>writing</u> | |
| why | <u>"good aptitude for that"</u> | |

5. Trouble with geometry / algebra
- why "not mathematically inclined"

B. Work history:

- | | | |
|--|---|--|
| 1. Jobs | 2. Liked | 3. Disliked |
| <u>"1st real"</u>
<u>"achieve drug store"</u>
<u>stock / paper work / deliveries</u>
<u>in store - "clean up"</u>
<u>person"</u>
<u>Club - driver (5 yrs.)</u>
<u>Alexander's store</u>
<u>2 days TSP</u> | <u>liked to drive</u>
<u>make deliveries</u>
<u>physical - some /</u>
<u>responsibilities</u>
<u>money</u>
<u>accomplishment</u>
<u>didn't risk</u>
<u>step back</u> | <u>hating "mability to"</u>
<u>some of</u>
<u>hated people who</u>
<u>are making</u>
<u>disturb / people</u>
<u>anxiety producing</u> |
| 4. What I did best | <u>driving for Club</u> | |
| why | <u>"Mastered it to the hilt"</u>
<u>dependable</u> | |

5. Trouble with driving - Club

why pressure / "mentally sick"

and
continue
3/19/80

C. Leisure time (past): many activities

1. Activities

2. Liked

3. Disliked

<u>listening to music</u>	<u>good release of tension</u>	<u>"if stoned - had be music"</u>
<u>dance (modern dance activity)</u>	<u>expressing self conveying mood</u>	<u>can't make living</u>
<u>jazzing</u>	<u>"high afterwards"</u>	<u>peaceful / Shen Splints</u>
<u>debates / giving talk</u>	<u>"challenge"</u>	<u>not being prepared</u>
<u>ice skating</u>	<u>"left good"</u>	<u>some muscles old - but / insecurity</u>
<u>Swimming</u>	<u>(chopping the wood / camping)</u>	<u>reading /</u>

4. What I did best

Swimming

why "brothers taught me" - "I feel like
I do it well" - "affinity for me + water" I like it

5. Trouble with debate

why "insecurity to overcome"
to do debate

C. Leisure time (present):

1. Activities

2. Liked

3. Disliked

<u>listen to radio -</u>	<u>expression of myself</u>	<u>commercial</u>	<u>"Crazy radio news"</u>
<u>Singing (radio)</u>	<u>escape</u>		
<u>is w/ a mixable people</u>	<u>can trust / talking about free-thinking people</u>	<u>I like - catcom people get after</u>	
<u>"intimate contact"</u>			
<u>Love relationships</u>	<u>warmth falling in love</u>	<u>working out communication prob</u>	

4. What I did best

"Can't answer ... all important"
why I feel I need the intimate contact
Being alone isn't good for me" 163

5. Trouble with relationships w/ people

why "trouble" - good / had relationships
(concliness)

D. Home/Family Activities:

1. Things I do with family

family gatherings
(holidays)
"basketball w/ nephew"

2. Liked

get to see all at once
enjoy talking to
nephew
"take him"
under wing

3. Disliked

tense feeling
communicating
w/ brother (stranger)
coming back
"be like big / don't work"
kid" / week w/ kids

eat dinner w/ mother
talk about
family reunion (extended) Supper
1-2 yrs.

"communication
"problem"
"all people strangers"

4. What I did best "hard to say"

"intimate family gatherings / young ones"

why extension of brother & wives + children

5. Trouble with big family reunion

why hard to communicate /
small talk

E. Vocational/Educational Plans:

1. My short term vocational/educational plans are "see relationship"
blowom / fl+ get I could serve on me

non-linear / I expect myself more - career educational

2. My long term vocational/educational plans are thought about

a lot / living w/ person I care about
hard to know "make work like unit"

2-3 yrs Schooling w/ career related
working on my head
cope w/ stress
being somewhere else - argue

CAREER MATURITY PROFILE

Name ▶ Test Date ▶ Grade ▶ Batch ▶
 Sex ▶ Birth Date ▶ Age ▶ Group ▶
 School ▶ City ▶ Home Date ▶

This test is designed to measure the degree of maturity in career decision making. It is based on the assumption that a person's career maturity is a function of his or her knowledge of self, knowledge of the world of work, and the ability to make a choice and follow through on it.

These scores are derived from
 national or
 local
 interpretive frequency distributions.

Item Answered Maturely
 Item Answered Immaturely
 Item Omitted

Attitude Scale

Raw Score Standard Percentile Rank

Rate of Career Maturity
 Standard Score and Percentile Rank Scales

Form A 1

Screening Form A 2

Counseling Form B 1

of 50

27 30 35 40 45 50 55 60 65 70 73
 1 5 10 20 30 40 50 60 70 80 90 95 99

1 Decisiveness in Career Decision Making

2 of 10

7

27 30 35 40 45 50 55 60 65 70 73
 1 5 10 20 30 40 50 60 70 80 90 95 99

1 3 10 18 31 44 57 70 83 96

2 Involvement in Career Decision Making

10 of 10

82

27 30 35 40 45 50 55 60 65 70 73
 1 5 10 20 30 40 50 60 70 80 90 95 99

4 6 13 21 34 47 60 73 86 99

3 Independence in Career Decision Making

9 of 10

38

27 30 35 40 45 50 55 60 65 70 73
 1 5 10 20 30 40 50 60 70 80 90 95 99

7 9 16 24 37 50 63 76 89 99

4 Orientation to Career Decision Making

3 of 10

3

27 30 35 40 45 50 55 60 65 70 73
 1 5 10 20 30 40 50 60 70 80 90 95 99

10 12 25 37 50 63 76 89 99

5 Compromise in Career Decision Making

3 of 10

5

27 30 35 40 45 50 55 60 65 70 73
 1 5 10 20 30 40 50 60 70 80 90 95 99

13 15 28 41 54 67 80 93 99

Competence Test

Part 1 Knowing Yourself (Self Appraisal)

16 of 20

73

27 30 35 40 45 50 55 60 65 70 73
 1 5 10 20 30 40 50 60 70 80 90 95 99

1 3 10 18 31 44 57 70 83 96

Part 2 Knowing About Jobs (Occupational Information)

17 of 20

50

27 30 35 40 45 50 55 60 65 70 73
 1 5 10 20 30 40 50 60 70 80 90 95 99

2 4 11 19 32 45 58 71 84 97

Part 3 Choosing a Job (Goal Selection)

17 of 20

86

27 30 35 40 45 50 55 60 65 70 73
 1 5 10 20 30 40 50 60 70 80 90 95 99

2 4 11 19 32 45 58 71 84 97

Part 4 Looking Ahead (Planning)

15 of 20

58

27 30 35 40 45 50 55 60 65 70 73
 1 5 10 20 30 40 50 60 70 80 90 95 99

2 4 11 19 32 45 58 71 84 97

Part 5 What Should They Do? (Problem Solving)

15

90

27 30 35 40 45 50 55 60 65 70 73
 1 5 10 20 30 40 50 60 70 80 90 95 99

2 4 11 19 32 45 58 71 84 97

165

166

166

16594

STRONG-CAMPBELL INTEREST INVENTORY

RESULTS FOR

04/03/80

MALE

CHOOSING YOUR CAREER IS AN IMPORTANT PROCESS WHICH REQUIRES THAT YOU RECOGNIZE YOUR ABILITIES, BUT YOUR INTERESTS AND PERSONAL PREFERENCES ARE ALSO FUNDAMENTAL TO CHOOSING A SATISFYING OCCUPATION. RESEARCH HAS INDICATED THAT INDIVIDUALS HAVE A BETTER CHANCE OF BEING SATISFIED IN A PARTICULAR OCCUPATION IF THEIR INTERESTS ARE SIMILAR TO THOSE OF PEOPLE ALREADY EMPLOYED IN THAT OCCUPATION. THE STRONG-CAMPBELL INTEREST INVENTORY, THEREFORE, POINTS OUT WORK AREAS WHERE YOUR INTERESTS DO AND DO NOT MATCH THOSE OF PEOPLE IN DIFFERENT OCCUPATIONS. THESE RESULTS, WHICH ARE BASED ON YOUR LIKE AND DISLIKE RESPONSES TO THE ITEMS ON THE INVENTORY, WILL HELP YOU UNDERSTAND HOW YOUR PREFERENCES FIT INTO THE WORLD OF WORK.

THESE RESULTS ARE MEASURES OF YOUR INTERESTS, NOT YOUR ABILITIES. EVEN THOUGH YOUR SCORES MAY INDICATE THAT YOU LIKE ARTISTIC ACTIVITIES AND WOULD ENJOY THE DAILY ROUTINE OF ARTISTS, THEY WILL NOT TELL YOU IF YOU HAVE THE TALENT TO ACTUALLY BE AN ARTIST.

THESE RESULTS CAN GIVE YOU SOME USEFUL INFORMATION ABOUT YOURSELF. WHILE YOU MAY FEEL THAT THEY TELL YOU NOTHING MORE THAN YOU ALREADY KNOW, THEY WILL PERMIT YOU TO SEE HOW THE STRENGTHS OF YOUR INTERESTS COMPARE TO THE AVERAGE SCORES OF OTHER PEOPLE. IN DOING THEY CAN AID YOU IN REACHING A SATISFYING CAREER DECISION.

* * * * *

THREE MAIN SETS OF SCORES ARE PRESENTED ON THE FOLLOWING PAGES. THE FIRST SET OF SCORES GIVES YOU AN OVERALL VIEW OF YOUR INTERESTS, BASED ON SIX GENERAL OCCUPATIONAL THEMES. THE STRENGTH OF YOUR INTERESTS IN MORE SPECIFIC AREAS, SUCH AS SALES, MUSIC, AND MECHANICAL ACTIVITIES, IS SUGGESTED BY THE SECOND GROUP OF SCORES. THE LAST SCORES TELL YOU HOW SIMILAR OR DIS-SIMILAR YOUR INTERESTS ARE TO EMPLOYED PEOPLE IN VARIOUS OCCUPATIONS.

* * * * *

 **** GENERAL OCCUPATIONAL THEMES ****

PSYCHOLOGICAL RESEARCH HAS INDICATED THAT INTERESTS CAN BE GROUPED INTO SIX CATEGORIES, EACH OF WHICH CAN BE DESCRIBED BY A GENERAL THEME. IMMEDIATELY BELOW ARE YOUR SCORES - LISTED FROM HIGH TO LOW - ON THESE SIX GENERAL THEMES. A GRAPH OF YOUR RESULTS ALSO HAS BEEN PROVIDED. THE SIX THEME NAMES ARE SHOWN AT THE RIGHT OF THE GRAPH, WITH THEIR ABBREVIATIONS LISTED IN THE SCALE COLUMN. AVERAGE SCORES ON THESE SCALES RANGE BETWEEN 43 AND 57. SCORES BELOW 43 ARE GENERALLY CONSIDERED LOW AND INDICATE THAT YOU PROBABLY SHARE FEW OF THE CHARACTERISTICS OF THAT THEME. SCORES ABOVE 57 GENERALLY ARE CONSIDERED HIGH AND SUGGEST THAT MANY OF THE CHARACTERISTICS OF THAT THEME PROBABLY FIT YOU.

SCALE	YOUR SCORE	3 0.....	4 0.....	5 0.....	6 0.....	7 0.....	
A-THEME	66	*****	*****	*****	*****	*****	(ARTISTIC)
R-THEME	66	*****	*****	*****	*****	*****	(REALISTIC)
I-THEME	59	*****	*****	*****	*****	*****	(INVESTIGATIVE)
S-THEME	57	*****	*****	*****	*****	*****	(SOCIAL)
E-THEME	48	*****	*****	*****	*****	*****	(ENTERPRISING)
C-THEME	47	*****	*****	*****	*****	*****	(CONVENTIONAL)

THE DESCRIPTIONS GIVEN BELOW LIST THE CHARACTERISTICS RELATED TO EACH THEME. ALL OF THE INTERESTS AND CHARACTERISTICS FOR ONE THEME, HOWEVER, MAY NOT FIT EXACTLY ANY ONE PERSON. MOST PEOPLE SCORE HIGH ON TWO OR EVEN THREE THEMES, THUS DISPLAYING CHARACTERISTICS OF MORE THAN ONE CATEGORY. SOME PEOPLE SCORE LOW ON ALL THEMES, INDICATING THAT DEFINITE PATTERNS OF INTERESTS, AS MEASURED BY THESE THEMES, HAVE NOT DEVELOPED YET. THIS IS PARTICULARLY TRUE FOR YOUNG PEOPLE. GENERALLY, THE HIGHER YOUR SCORE, THE MORE CHARACTERISTICS YOU SHARE WITH THAT PARTICULAR THEME. MEN AND WOMEN SCORE SOMEWHAT DIFFERENTLY ON THE SAME THEME, AND THIS HAS BEEN TAKEN INTO ACCOUNT BY COMPARING YOUR SCORES WITH THE AVERAGES FOR YOUR SEX.

A A-THEME--PEOPLE SCORING HIGH ON THIS THEME ARE ARTISTICALLY INCLINED AND LIKE TO WORK ALONE A
 R IN SETTINGS THAT ALLOW THEM TO EXPRESS THEMSELVES CREATIVELY. THEY DO NOT LIKE SITUATIONS WHICH R
 T REQUIRE THEM TO USE PHYSICAL STRENGTH, AND THEY DESCRIBE THEMSELVES AS INDEPENDENT, UNCONVEN- T
 I TIONAL, ORIGINAL, AND TENSE. THEY SCORE HIGHER ON MEASURES OF ORIGINALITY THAN DO ANY OF THE I
 S OTHER TYPES. VOCATIONAL CHOICES INCLUDE ARTIST, AUTHOR, CARTOONIST, COMPOSER, SINGER, DRAMATIC S
 T COACH, POET, ACTOR OR ACTRESS, AND SYMPHONY CONDUCTOR. THIS IS THE ARTISTIC THEME, OR A-THEME. T
 I YOUR SCORE OF 66 ON THE A-THEME SCALE INDICATES THAT MOST LIKELY ALL THE ABOVE DESCRIPTIONS I
 C ARE TRUE FOR YOU AND YOU WOULD FIND ARTS AND CRAFTS TYPES OF ACTIVITIES REWARDING. 170 C
 WHEN COMPARED WITH JUST MALES, YOUR SCORE IS A VERY HIGH SCORE.

R E A L I S T I C
 R-THEME--R-THEME PEOPLE TEND TO BE RUGGED, PRACTICAL, AND PHYSICALLY STRONG. THEY ENJOY CREATING THINGS WITH THEIR HANDS AND WOULD RATHER WORK WITH OBJECTS, SUCH AS TOOLS OR LARGE MACHINES, THAN WITH IDEAS OR PEOPLE. THEY LIKE TO WORK OUTDOORS AND PREFER OCCUPATIONS SUCH AS MECHANIC, CONSTRUCTION WORKER, FISH AND WILDLIFE MANAGER, LABORATORY TECHNICIAN, SOME ENGINEERING SPECIALTIES, SOME MILITARY JOBS, AGRICULTURE, OR THE SKILLED TRADES. TO CAPTURE THE BROAD MEANING OF THIS THEME, THE WORD REALISTIC HAS BEEN USED, THUS R-THEME.
 T YOUR SCORE OF 66 ON THE R-THEME SCALE INDICATES THAT VERY LIKELY MOST OF THE ABOVE DESCRIPTIONS ARE TRUE FOR YOU AND YOU WOULD ENJOY ACTIVITIES THAT ALLOW YOU TO WORK WITH YOUR HANDS.
 C WHEN COMPARED WITH JUST MALES, YOUR SCORE IS A HIGH SCORE.

I N V E S T I G A T I O N
 I-THEME--THIS THEME TENDS TO CENTER AROUND SCIENTIFIC ACTIVITIES. HIGH SCORERS ON THIS THEME WOULD RATHER WORK ALONE THAN WITH PEOPLE. THEY HAVE QUESTIONING MINDS AND LIKE LOOSELY DEFINED PROBLEMS WHICH THEY CAN SOLVE BY WORKING WITH IDEAS, WORDS, AND SYMBOLS. THEY DO NOT LIKE SITUATIONS IN WHICH THEY HAVE TO FOLLOW MANY RULES. FREQUENTLY, THEY ARE ORIGINAL AND CREATIVE, ESPECIALLY IN SCIENTIFIC AREAS. OCCUPATIONS PREFERRED BY SUCH PEOPLE INCLUDE BIOLOGIST, MATHEMATICIAN, PSYCHOLOGIST, RESEARCH LABORATORY WORKER, PHYSICIST, PHYSICIAN, DESIGN ENGINEER, TECHNICAL WRITER, OR METEOROLOGIST. THE WORD INVESTIGATIVE HAS BEEN USED TO SUMMARIZE THIS PATTERN, HENCE, I-THEME.
 A YOUR SCORE OF 59 ON THE I-THEME SCALE INDICATES THAT VERY LIKELY MANY OF THE ABOVE DESCRIPTIONS ARE TRUE FOR YOU AND YOU MIGHT ENJOY ACTIVITIES THAT INVOLVE SCIENTIFIC PROBLEMS.
 . WHEN COMPARED WITH JUST MALES, YOUR SCORE IS MODERATELY HIGHER THAN AVERAGE.

S O C I A L
 S-THEME--PEOPLE WHO FIT THIS THEME DESCRIBE THEMSELVES AS CHEERFUL, POPULAR, SOCIABLE, RESPONSIBLE, AND CONCERNED WITH THE WELFARE OF OTHERS. THEY SEE THEMSELVES AS ACHIEVERS AND GOOD LEADERS. USUALLY ABLE TO EXPRESS THEMSELVES WELL WITH WORDS, THEY GET ALONG WELL WITH OTHERS AND ENJOY BEING THE CENTER OF ATTENTION IN A GROUP. THEY PREFER SOLVING PROBLEMS THROUGH DISCUSSIONS OR BY ARRANGING OR REARRANGING RELATIONSHIPS BETWEEN OTHERS. THEY HAVE LITTLE INTEREST IN SITUATIONS REQUIRING PHYSICAL ACTIVITY OR WORKING WITH MACHINERY. THEY PREFER OCCUPATIONS SUCH AS SCHOOL SUPERINTENDENT, CLINICAL PSYCHOLOGIST, HIGH SCHOOL TEACHER, MARRIAGE COUNSELOR, A PLAYGROUND DIRECTOR, SPEECH THERAPIST, OR VOCATIONAL COUNSELOR. THIS IS THE SOCIAL THEME.
 L YOUR SCORE OF 57 ON THE S-THEME INDICATES THAT SOME OF THE ABOVE PHRASES ARE TRUE FOR YOU, WHILE SOME OF THE OTHER PHRASES DO NOT DESCRIBE YOU AS WELL.
 WHEN COMPARED WITH JUST MALES, YOUR SCORE IS MODERATELY HIGHER THAN AVERAGE.

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171

E N T E R P R I S I N G
 E-THEME--E-THEME PEOPLE ARE FREQUENTLY IN SALES WORK BECAUSE THEY ARE GOOD AT LEADING AND CONVINCING PEOPLE. ENTHUSIASTIC, SELF-CONFIDENT, AND DOMINANT, THEY THINK UP NEW WAYS OF DOING THINGS, ARE FULL OF ENERGY, AND LIKE ADVENTURE. THEY ARE IMPATIENT WITH WORK INVOLVING MANY DETAILS, OR LONG PERIODS OF INTELLECTUAL EFFORT OR CONCENTRATION. THEY PREFER SOCIAL SITUATIONS WHERE THEY CAN LEAD AND DIRECT OTHERS. THEY LIKE POWER, STATUS, AND MATERIAL WEALTH, AND ENJOY WORKING IN EXPENSIVE SETTINGS. VOCATIONAL PREFERENCES INCLUDE BUSINESS EXECUTIVE, MERCHANDISE BUYER, HOTEL MANAGER, INDUSTRIAL RELATIONS CONSULTANT, POLITICAL CAMPAIGNER, REALTOR, SPORTS PROMOTER, TELEVISION PRODUCER, AND MANY KINDS OF SALES WORK. THE WORD ENTERPRISING SUMMARIZES THIS PATTERN OF INTEREST, THUS E-THEME.

I YOUR SCORE OF 48 ON E-THEME INDICATES THAT SOME OF THE ABOVE PHRASES ARE TRUE FOR YOU,
N WHILE SOME OF THE OTHER PHRASES DO NOT DESCRIBE YOU AS WELL.
G WHEN COMPARED WITH JUST MALES, YOUR SCORE IS AN AVERAGE SCORE.

I
N
G

C C-THEME--HIGH SCORERS ON THIS THEME LIKE JOBS WHERE THEY KNOW EXACTLY WHAT IS EXPECTED OF
O THEM. PROBLEMS USING VERBAL AND NUMERICAL SKILLS ARE PREFERRED TO THOSE REQUIRING PHYSICAL
N SKILLS. C-THEME PEOPLE FIT WELL INTO LARGE ORGANIZATIONS AND RESPOND TO AUTHORITY, BUT THEY DO
V NOT SEEK LEADERSHIP. THEY HAVE LITTLE INTEREST IN INTENSE RELATIONSHIPS WITH OTHERS, BUT VALUE
E MATERIAL POSSESSIONS AND STATUS. SUCH PEOPLE DESCRIBE THEMSELVES AS CONVENTIONAL, STABLE, WELL-
N CONTROLLED, AND DEPENDABLE. VOCATIONAL PREFERENCES ARE MOSTLY WITHIN THE BUSINESS WORLD AND IN-
T CLUDE BANK EXAMINER, BANK TELLER, BOOKKEEPER, FINANCIAL ANALYST, COMPUTER OPERATOR, INVENTORY
I CONTROLLER, TAX EXPERT, STATISTICIAN, TRAFFIC MANAGER, AND SOME ACCOUNTING JOBS. ALTHOUGH ONE
O WORD CANNOT ADEQUATELY REPRESENT THE ENTIRE THEME, THE WORD CONVENTIONAL SUMMARIZES THIS PAT-
N TERN, THUS C-THEME.

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A YOUR SCORE OF 47 ON C-THEME INDICATES THAT SOME OF THE ABOVE PHRASES ARE TRUE FOR YOU,
L WHILE SOME OF THE OTHER PHRASES DO NOT DESCRIBE YOU AS WELL.
WHEN COMPARED WITH JUST MALES, YOUR SCORE IS AN AVERAGE SCORE.

* * * * *

AN EXCELLENT LITTLE BOOK THAT DISCUSSES THE SIX GENERAL THEME SCALES AND MAKING CAREER
CHOICES IS--IF YOU DO NOT KNOW WHERE YOU ARE GOING YOU WILL PROBABLY END UP SOMEWHERE ELSE--BY
DR. DAVID P. CAMPBELL. THIS IS AVAILABLE IN YOUR LOCAL BOOKSTORE OR MAY BE PURCHASED (\$2.25)
FROM NATIONAL COMPUTER SYSTEMS, 4401 WEST 76TH STREET, MINNEAPOLIS, MINNESOTA 55435.

THE PRECEDING GENERAL THEME SCORES PROVIDE YOU WITH A BROAD, GENERAL OVERVIEW OF YOUR IN-
TERESTS. THE NEXT SECTION PRESENTS YOUR RESULTS ON TWENTY-THREE BASIC INTEREST SCALES THAT
ARE MORE SPECIFIC MEASURES OF YOUR INTERESTS.

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***** BASIC INTEREST SCALES *****

YOUR RESULTS ON TWENTY-THREE BASIC INTEREST SCALES - REPORTED BELOW AND INDICATED BY ASTERISKS ON THE GRAPH - SHOW THE STRENGTH OF YOUR INTERESTS IN A VARIETY OF AREAS. THE AVERAGE ADULT SCORES BETWEEN 43 AND 57 ON EACH SCALE. YOUR HIGH INTEREST SCORES SHOW AREAS WHERE YOU WILL FIND ACTIVITIES ENJOYABLE TO YOU. YOUR LOW INTEREST SCORES INDICATE AREAS THAT WILL BE LESS REWARDING TO YOU. ON SOME SCALES, MALES AND FEMALES RESPOND SOMEWHAT DIFFERENTLY. THE LINES OF DOTS THAT APPEAR FOR EACH SCALE INDICATE THE AVERAGE RANGE OF SCORES FOR YOUR SEX. THE LOWEST POSSIBLE SCORE, (MIN), AND THE HIGHEST POSSIBLE SCORE, (MAX), ARE LISTED FOR EACH SCALE. IN GENERAL, YOU WILL FIND YOUR WORK MORE ENJOYABLE IF YOUR JOB INVOLVES ACTIVITIES IN THE BASIC INTEREST AREAS WHERE YOU HAVE HIGH INTEREST SCORES.

BASIC INTEREST SCALES	YOUR SCORE	3 0.....	4 0.....	5 0.....	6 0.....	7 0.....	MIN-MAX
VERY HIGH INTEREST (66+)							
MUSIC/DRAMA	73		.....			*	26-73
LAW/POLITICS	69			.....		*	30-69
NATURE	67		.....			*	17-67
PUBLIC SPEAKING	67			.....		*	31-71
HIGH INTEREST (65-58)							
ART	64		.....			*	26-68
MECHANICAL	64			.....		*	30-72
DOMESTIC ARTS	63		.....			*	27-75
SCIENCE	63			.....		*	28-69
MILITARY ACTIVITIES	62			.....		*	41-76
AGRICULTURE	62			.....		*	30-66
RELIGIOUS ACTIVITIES	60		.....			*	31-68
WRITING	60		.....			*	26-66
MEDICAL SERVICE	59		.....			*	33-76
SOCIAL SERVICE	59		.....			*	24-69
AVERAGE INTEREST (57-43)							
SALES	54			*			37-61
MEDICAL SCIENCE	54			*			29-68
OFFICE PRACTICES	51		*				36-79
ADVENTURE	48			*.....			30-71
MATHEMATICS	47			*.....			31-67
BUSINESS MANAGEMENT	47			*.....			29-72
ATHLETICS	46			*.....			27-70
TEACHING	45		*				23-67
LOW INTEREST (42-35)							
MERCHANDISING	42			*.....			31-72
VERY LOW INTEREST (34-)							

3 4 5 6 7
.....0.....0.....0.....0.....0.....

YOUR HIGHEST INTEREST SCORES ON THE BASIC INTEREST SCALES ARE LISTED BELOW WITH AN EXPLANATION OF THE KINDS OF ACTIVITIES AND OCCUPATIONS THAT ARE RELATED TO EACH OF THE SCALES. IN GENERAL, THESE AREAS WOULD BE SOURCES OF SATISFYING OCCUPATIONAL CHOICES AND LEISURE TIME ACTIVITIES FOR YOU.

ALSO LISTED ARE PAGE REFERENCES FOR THE OCCUPATIONAL OUTLOOK HANDBOOK (OOH), BULLETIN NO. 1955. THIS BOOK CAN BE USED TO FIND MORE INFORMATION ON THE LATEST EMPLOYMENT OPPORTUNITIES AND EDUCATIONAL REQUIREMENTS FOR THE VARIOUS OCCUPATIONS RELATED TO YOUR HIGH SCORES. THE OOH CAN BE FOUND IN YOUR LOCAL LIBRARY OR CAN BE ORDERED DIRECTLY FROM THE U.S. GOVERNMENT PRINTING OFFICE, WASHINGTON D.C., 20402, FOR \$8.00.

- 73 MUSIC/DRAMATICS (OOH 566-574)---INTEREST IN STUDYING, ATTENDING, OR PARTICIPATING IN THE MUSICAL/DRAMATIC PERFORMING ARTS IS MEASURED BY THIS SCALE. HIGH SCORING OCCUPATIONS INCLUDE ACTOR/ACTRESS, MUSICIAN, AND DANCER.
- 69 LAW/POLITICS (OOH 145-148)---ACTIVITIES THAT DEAL WITH LEGAL MATTERS AND POLITICS -- SUCH AS READING LEGAL JOURNALS OR STUDYING POLITICAL SCIENCE -- ARE IMPORTANT TO THIS AREA. HIGH SCORERS INCLUDE CRIMINAL OR CORPORATION LAWYERS, POLITICIANS, AND JUDGES.
- 67 NATURE (OOH 334-341)---ACTIVITIES THAT INVOLVE BEING OUTDOORS ENJOYING NATURE AND WILDLIFE INCLUDE FISHING, CAMPING, AND RAISING FLOWERS AND VEGETABLES. FORESTERS, FOREST RANGERS, AND WILDLIFE MANAGERS HAVE INTERESTS THAT FIT THIS AREA.
- 67 PUBLIC SPEAKING (OOH 596-597)---INTEREST IN RECEIVING ATTENTION BY SPEAKING IN FRONT OF PEOPLE AND TALKING TO LARGE GROUPS IS MEASURED BY THIS SCALE. HIGH SCORERS INCLUDE POLITICIANS, LAWYERS, AUCTIONEERS, AND TELEVISION ANNOUNCERS.

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THE PRECEDING TWO SECTIONS EVALUATE YOUR RESULTS IN TERMS OF GENERAL OCCUPATIONAL THEME SCALES AND MORE SPECIFIC BASIC INTEREST SCALES. THE NEXT SECTION IS A SPECIFIC COMPARISON OF YOUR SCORES TO THOSE OF PEOPLE IN A VARIETY OF OCCUPATIONS.

SEPARATE OCCUPATIONAL SCALES HAVE BEEN DEVELOPED FOR EACH SEX BECAUSE FEMALES AND MALES IN THE SAME OCCUPATION RESPOND DIFFERENTLY TO SOME OF THE ITEMS ON THE INVENTORY. SO AS TO NOT LIMIT YOUR CONSIDERATION OF A CAREER NOT CURRENTLY REPRESENTED FOR YOUR SEX, YOUR SCORES ON BOTH FEMALE AND MALE SCALES ARE PRESENTED. YOUR SCORES ON THE OCCUPATIONAL SCALES BASED ON YOUR SEX, HOWEVER, ARE LIKELY TO BE BETTER PREDICTORS FOR YOU THAN THOSE SCORES ON SCALES BASED ON THE OPPOSITE SEX.

 **** OCCUPATIONAL SCALES ****

THE NEXT GROUP OF RESULTS ARE OCCUPATIONAL SCALES. THEY INDICATE HOW SIMILAR YOUR INTERESTS ARE TO THE INTERESTS OF EMPLOYED PEOPLE IN VARIOUS OCCUPATIONS. THE AVERAGE WORKER SCORES ABOUT 50 ON THE SCALE WHICH IS BASED ON HER OR HIS OCCUPATION, AND ABOUT TWO-THIRDS OF THESE WORKERS HAVE SCORES OF 45 AND HIGHER ON THEIR OCCUPATION SCALE. IN THE GENERAL POPULATION, THE AVERAGE RANGE OF SCORES FOR ADULTS IS BETWEEN 26 AND 44. SCORES BELOW 26 INDICATE LITTLE SIMILARITY OF INTEREST WITH PEOPLE IN THAT OCCUPATION. YOUR SCORES ARE LISTED TO THE LEFT OF EACH OCCUPATIONAL SCALE, AND ARE RANKED FROM HIGH TO LOW WITHIN EACH OF THE GROUPS OF VERY SIMILAR, SIMILAR, AVERAGE RANGE, DISSIMILAR, AND VERY DISSIMILAR INTERESTS.

RESEARCH HAS INDICATED THAT PEOPLE WHO ENTER AN OCCUPATION WHERE THEY HAVE SIMILAR SCORES TEND TO REMAIN IN THAT OCCUPATION AND ARE MORE SATISFIED THAN IF THEY ENTER AN OCCUPATION WHERE THEY HAVE DISSIMILAR SCORES. FURTHERMORE, THESE SCORES MAY INDICATE INTEREST IN AN OCCUPATION THAT YOU MAY NOT HAVE CONSIDERED BEFORE AND CAN HELP YOU THINK ABOUT VARIOUS OTHER CAREERS. THE FOLLOWING SCORES INDICATE HOW YOUR INTERESTS MATCH THOSE OF MALES IN VARIOUS OCCUPATIONS.

VERY SIMILAR 55+	SIMILAR 54-45	AVERAGE RANGE 44-26	DISSIMILAR 25-16	VERY DISSIMILAR 15-
56 MATH-SCI. TEACH.	54 PRIEST	44 DIETITIAN	25 SKILLED CRAFTS	14 BUYER
	53 SOCIAL WORKER	44 MINISTER	23 SALES MANAGER	14 FARMER
	53 SPEECH PATHOL.	43 ADVERTISING EXEC	21 FUNERAL DIRECTOR	12 VOC AGRIC. TCHR.
	52 PSYCHOLOGIST	43 MUSICIAN	20 PURCHASING AGENT	10 REALTOR
	50 PUBLIC ADMINIS.	42 AIR FORCE OFF.	20 VETERINARIAN	5 AGRIBUSINESS MGR
	49 ARCHITECT	42 POLICE OFFICER	18 BANKER	-4 ACCOUNTANT
	49 REGISTERED NURSE	42 DENTIST		
	48 CHIROPRACTOR	42 OPTOMETRIST		
	48 ENGLISH TEACHER	41 CHAM. OF COMM.		
	48 PHYSICIAN	41 SOCIAL SCIENTIST		
	48 ENGINEER	40 PHYS. SCIENTIST		
	47 CARTOGRAPHER	40 GUIDANCE COUNS.		
	46 LIBRARIAN	40 FORESTER		
	46 COLLEGE PROF.	40 MERCH MARINE OFF		
	46 COMPUTER PROGR.	40 PHOTOGRAPHER		
	46 MEDICAL TECH.	39 ELEM. TEACHER		
	45 LAWYER	39 ARTIST		
	45 PHYS. THERAPIST	38 SCHOOL SUPERDT.		
		38 REPORTER		
		37 PERSONNEL DIR.		
		37 LIC. PRAC. NURSE		
		37 BIOLOGIST		
		35 MATHEMATICIAN		
		34 NAVY OFFICER		
		34 ARMY OFFICER		
		33 SOC. SCI TEACHER		

33 RECREATION LEAD.
 33 INT. DECORATOR
 31 CREDIT MANAGER
 30 LIFE INS. AGENT
 29 BUSINESS ED TCHR
 28 HWY. PATROL OFF.
 28 DEPT. STORE MGR.
 28 PHARMACIST
 27 COMPUTER SALES
 27 INVESTM FUND MGR

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BELOW ARE YOUR HIGHEST OCCUPATIONAL SCALE SCORES. YOU SHOULD PAY PARTICULAR ATTENTION TO THOSE OCCUPATIONS WHERE YOUR SCORES INDICATED THAT YOU HAD THE MOST SIMILAR INTERESTS. YOU WILL HAVE THE BEST CHANCE OF FINDING SATISFACTION IF YOU DECIDE ON AN OCCUPATION WHEPE YOUR INTERESTS ARE SIMILAR WITH YOUR CO-WORKERS AND LESS CHANCE IF YOUR INTERESTS ARE DISSIMILAR. IF YOU RECORDED THE SAME LIKES AND DISLIKES AS THE WORKERS, YOUR SCORE WILL BE HIGH FOR THAT OCCUPATION. IF YOUR LIKE AND DISLIKE RESPONSES WERE DIFFERENT FROM THOSE OF PEOPLE IN THE OCCUPATION, YOUR SCORE WILL BE LOW AND YOU WOULD NOT LIKELY BE SATISFIED IN THAT KIND OF WORK.

AS BEFORE, PAGE REFERENCES ARE GIVEN FOR THE OCCUPATIONAL OUTLOOK HANDBOOK (OOH), WHICH PRESENTS ADDITIONAL INFORMATION ON EMPLOYMENT OPPORTUNITIES AND RELEVANT WORK SITUATIONS. REFERENCES ALSO ARE LISTED FOR THE DICTIONARY OF OCCUPATIONAL TITLES (DOT) FOURTH EDITION-1975. THE DOT GIVES DETAILED JOB DESCRIPTIONS OF THE DUTIES AND FUNCTIONS OF EACH OCCUPATION AND CAN BE FOUND IN YOUR LOCAL LIBRARY OR PURCHASED FROM THE U.S. GOVERNMENT PRINTING OFFICE FOR \$12.00. THE FIRST DOT REFERENCE IS FOR PAGE NUMBER AND THE SECOND DOT REFERENCE IS FOR THE DOT CODE FOR THAT PARTICULAR OCCUPATION.

YOUR HIGHEST SCORES APPEARED ON THE FOLLOWING SCALES AND INDICATE THE GREATEST DEGREE OF SIMILARITY BETWEEN YOUR ANSWERS AND THOSE OF MALES IN THESE OCCUPATIONS--

- 56 MATH-SCIENCE TEACHER-----MATH-SCIENCE TEACHERS INSTRUCT STUDENTS IN MATH AND SCIENCE. A FOUR-YEAR COLLEGE DEGREE IS REQUIRED. PERSONS INTERESTED IN THIS OCCUPATION SHOULD ENJOY INSTRUCTING OTHERS. RELATED OCCUPATIONS ARE MATHEMATICIAN, STATISTICIAN, AND SCIENTIST. THE EMPLOYMENT OUTLOOK FOR THIS FIELD IS EXPECTED TO BE BELOW THE AVERAGE FOR ALL OCCUPATIONS, WITH COMPETITION EXPECTED FOR MOST JOBS.
- OOH 213-215
 DOT 67-68
 DOT 091.227
- 54 PRIEST-----PRIESTS CONDUCT RELIGIOUS FUNCTIONS AND PROVIDE SPIRITUAL AND MORAL GUIDANCE TO MEMBERS OF THEIR FAITH. THIS OCCUPATION REQUIRES A FOUR-YEAR COLLEGE DEGREE, FOLLOWED BY FOUR YEARS OF STUDY AT A THEOLOGICAL SCHOOL. PRIESTS MUST BE WILLING TO ACCEPT THE FACT THAT THEY ARE NOT ALLOWED TO BE MARRIED AND MUST DEVOTE THEIR LIVES TO THE CHURCH. THEY MUST ALSO HAVE A SYMPATHETIC CONCERN FOR PEOPLE AND THEIR PROBLEMS. RELATED OCCUPATIONS INCLUDE COUNSELOR, MINISTER, AND RABBI. A GROWING NUMBER OF PRIESTS WILL BE NEEDED THE YEARS AHEAD.
- OOH 547-549
 DOT 77
 DOT 120.007

53 SOCIAL WORKER-----

OOH 562-565
 DOT 143-144
 DOT 195.107

SOCIAL WORKERS HELP INDIVIDUALS, FAMILIES, GROUPS, AND COMMUNITIES TO UNDERSTAND AND SOLVE THEIR PROBLEMS AND TO SECURE NEEDED SOCIAL SERVICES. FOR MANY POSITIONS IN SOCIAL WORK A MASTERS DEGREE IS PREFERRED OR REQUIRED, BUT A BACHELORS DEGREE IS BECOMING MORE ACCEPTABLE. PERSONS IN THIS OCCUPATION MUST BE EMOTIONALLY MATURE, OBJECTIVE, AND SENSITIVE, WITH A BASIC CONCERN FOR THE WELFARE OF OTHERS. RELATED OCCUPATIONS INCLUDE TEACHER, PAROLE OFFICER, WELFARE WORKER, AND COUNSELOR. EMPLOYMENT OPPORTUNITIES ARE EXPECTED TO INCREASE FASTER THAN THE AVERAGE FOR ALL OCCUPATIONS THROUGH THE MID-1980S, ALTHOUGH COMPETITION FOR SOME JOBS WILL BECOME STIFFER.

53 SPEECH PATHOLOGIST-----

OOH 502-504
 DOT 58
 DOT 076.107

SPEECH PATHOLOGISTS RESEARCH, DIAGNOSE, AND TREAT SPEECH AND LANGUAGE PROBLEMS. ENTRY INTO THIS CAREER REQUIRES AT LEAST A FOUR-YEAR COLLEGE DEGREE. SPEECH PATHOLOGISTS MUST BE SENSITIVE, PATIENT, EMOTIONALLY STABLE, ABLE TO ACCEPT RESPONSIBILITY, AND ADAPTABLE TO THE NEEDS OF THE PEOPLE THEY ARE WORKING WITH. A RELATED OCCUPATION IS AUDIOLOGIST. EMPLOYMENT IS EXPECTED TO INCREASE MUCH FASTER THAN THE AVERAGE FOR ALL OTHER OCCUPATIONS.

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THE U.S. GOVERNMENT PRINTING OFFICE PROVIDES SUBSECTIONS OF THE OOH IN PAMPHLET FORM IF THE BOOK ITSELF IS NOT READILY AVAILABLE TO YOU. THE BULLETIN NUMBER AND COST FOR EACH REPRINT THAT WOULD BE HELPFUL FOR YOU ARE LISTED BELOW. THESE PAMPHLETS CAN BE ORDERED FROM THE U.S. GOVERNMENT PRINTING OFFICE (MINIMUM ORDER IS \$1.00).

BULLETIN NO.	COST	TITLE
1955- 12	\$.50	EDUCATION AND RELATED OCCUPATIONS
1955- 31	\$.50	COUNSELING AND RELATED OCCUPATIONS
1955- 32	\$.50	SOCIAL SERVICE OCCUPATIONS
1955- 28	\$.50	HEALTH OCCUPATIONS

USING YOUR HIGH OCCUPATIONAL SCALE SCORES AS GUIDES, YOU SHOULD SEEK ADDITIONAL INFORMATION ABOUT THOSE AREAS WHERE YOUR INTERESTS ARE FOCUSED. ASK YOUR LIBRARIAN FOR FURTHER INFORMATION ON JOBS IN THESE AREAS, TALK TO PEOPLE IN THESE FIELDS, READ BOOKS AND PERIODICALS THAT ARE RELEVANT, AND SO FORTH.

TO LEARN MORE ABOUT THE LIFE AND WORK OF PEOPLE IN OCCUPATIONS WHERE YOU HAVE HIGH SCORES, THE FOLLOWING BOOKS ARE SUGGESTED FOR FURTHER INFORMATION--

- 183 INDIVIDUALIZING INSTRUCTION IN SCIENCE AND MATHEMATICS. BY VIRGIL M. HOWES. MACHILLAN, 1970.
 --YOUR CALLING AS A BROTHER. BY EDWARD L. CASHIN. RICHARDS ROSEN PRESS.
 --SO YOU WANT TO BE A SOCIAL WORKER. BY HELENE HARRIS PERLMAN. HARPER, 1970.
 --SPEECH PATHOLOGY + AUDIOLOGY CAREER INFORMATION. AMERICAN SPEECH + HEARING ASSOCIATION, 1971.

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THE FOLLOWING ARE YOUR SCORES BASED ON FEMALES IN VARIOUS OCCUPATIONS. SCORES ON ALL THE SCALES AVAILABLE ARE PRESENTED SO AS TO GIVE YOU ADDITIONAL INFORMATION ABOUT A WIDER RANGE OF CAREERS. AGAIN, THE BEST PREDICTORS FOR YOU WILL BE THOSE SCALES CORRESPONDING TO YOUR SEX. THE FOLLOWING SCORES INDICATE HOW YOUR INTERESTS MATCH THOSE OF FEMALES IN VARIOUS OCCUPATIONS.

VERY SIMILAR 55+	SIMILAR 54-45	AVERAGE RANGE 44-26	DISSIMILAR 25-16	VERY DISSIMILAR 15-
50 SOCIAL WORKER	53 GUIDANCE COUNS.	44 FLIGHT ATTENDANT	25 BANKER	15 MATHEMATICIAN
	53 MUSICIAN	43 LAWYER	24 BEAUTICIAN	15 BUSINESS ED TCHR
	52 PHYS. THERAPIST	43 DENTAL HYGIENIST	23 ACCOUNTANT	
	50 DIETITIAN	43 REGISTERED NURSE	21 CREDIT MANAGER	
	48 DENTIST	43 X-RAY TECHNICIAN	18 PHYSICIST	
	47 OCCUP. THERAPIST	43 ENTERTAINER	17 INSTRUM ASSEMBL.	
	46 SOC. SCI TEACHER	41 YMCA STAFF		
		41 CHRISTIAN ED DIR		
		41 PHARMACIST		
		40 LIFE INS. AGENT		
		40 HOME ECON. TCHR.		
		40 ARMY OFFICER		
		40 RECREATION LEAD.		
		40 ENGINEER		
		40 COLLEGE PROF.		
		40 REPORTER		
		40 ART TEACHER		
		40 MEDICAL TECH.		
		39 EXEC HOUSEKEEPER		
		39 ELEM. TEACHER		
		39 LIBRARIAN		
		38 LIC. PRAC. NURSE		
		38 ENGLISH TEACHER		
		33 SPEECH PATHOL.		
		33 PSYCHOLOGIST		
		33 PHYSICIAN		
		32 COMPUTER PROGR.		
		32 VETERINARIAN		
		31 LANGUAGE TEACHER		
		31 DENTAL ASSISTANT		
		31 DEPT STORE SALES		
		30 ADVERTISING EXEC		
		30 SECRETARY		
		30 INT. DECORATOR		
		30 OPTOMETRIST		
		30 BUYER		
		29 MATH-SCI. TEACH.		
		28 ART		
		27 LANGUAGE INTERPR		

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58 SOCIAL WORKER-----SOCIAL WORKERS HELP INDIVIDUALS, FAMILIES, GROUPS, AND COMMUNITIES TO UNDERSTAND AND SOLVE THEIR PROBLEMS AND TO SECURE NEEDED SOCIAL SERVICES. FOR MANY POSITIONS IN SOCIAL WORK A MASTERS DEGREE IS PREFERRED OR REQUIRED, BUT A BACHELORS DEGREE IS BECOMING MORE ACCEPTABLE. PERSONS IN THIS OCCUPATION MUST BE EMOTIONALLY MATURE, OBJECTIVE, AND SENSITIVE, WITH A BASIC CONCERN FOR THE WELFARE OF OTHERS. RELATED OCCUPATIONS INCLUDE TEACHER, PAROLE OFFICER, WELFARE WORKER, AND COUNSELOR. EMPLOYMENT OPPORTUNITIES ARE EXPECTED TO INCREASE FASTER THAN THE AVERAGE FOR ALL OCCUPATIONS THROUGH THE MID-1980S, ALTHOUGH COMPETITION FOR SOME JOBS WILL BECOME STIFFER.

OOH 562-565
DOT 143-144
DOT 195.107

53 GUIDANCE COUNSELOR-----GUIDANCE COUNSELORS PROVIDE EDUCATIONAL AND VOCATIONAL ADVICE AND SUGGESTIONS. REQUIREMENTS DIFFER FROM STATE TO STATE, BUT GENERALLY GRADUATE WORK AND ONE TO FIVE YEARS OF COUNSELING EXPERIENCE ARE REQUIRED FOR A COUNSELING CERTIFICATE. COUNSELORS MUST BE PATIENT, SYMPATHETIC TO THE NEEDS OF OTHERS, AND EFFECTIVE COMMUNICATORS. RELATED OCCUPATIONS ARE SOCIAL WORKER, TEACHER, AND MARRIAGE COUNSELOR. EMPLOYMENT IS EXPECTED TO GROW ABOUT AS FAST AS THE AVERAGE FOR ALL OCCUPATIONS THROUGH THE MID-1980S, WITH SOME COMPETITION FOR JOBS EXPECTED.

OOH 536-543
DOT 48
DOT 045.107

53 MUSICIAN-----MUSICIANS PLAY INSTRUMENTS AND MAY WRITE OR ARRANGE MUSIC. TALENT, PERSEVERANCE, CREATIVE ABILITY, AND YEARS OF PRACTICE ARE REQUIRED TO BECOME A SUCCESSFUL MUSICIAN. MUSICIANS MAY PLAY IN A SYMPHONY ORCHESTRA OR GIVE PRIVATE LESSONS. RELATED OCCUPATIONS ARE ENTERTAINER, COMPOSER, CONDUCTOR, AND SINGER. THIS FIELD IS EXPECTED TO REMAIN HIGHLY COMPETITIVE.

OOH 571-573
DOT 86
DOT 152.041

YOU SHOULD PAY PARTICULAR ATTENTION TO YOUR HIGH AND LOW SCORES ON THE THREE SETS OF SCALES PROVIDED -- GENERAL OCCUPATIONAL THEMES, BASIC INTEREST SCALES, AND OCCUPATIONAL SCALES. YOU MAY FIND THAT YOU HAVE A HIGH SCORE IN ONE OF THE BASIC INTEREST AREAS, SUCH AS ART, BUT A LOW SCORE ON THE ARTIST OCCUPATIONAL SCALE. THIS MIGHT INDICATE THAT DESPITE A HIGH INTEREST IN ART, YOU PROBABLY WOULD NOT LIKE THE EVERYDAY LIFE SITUATIONS OF AN ARTIST. SUCH SCORE COMPARISONS CAN HELP YOU DETERMINE THE TYPES OF OCCUPATIONS THAT WOULD MOST CLOSELY MATCH YOUR INTERESTS AND GIVE YOU THE GREATEST SATISFACTION.

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YOUR RESPONSES TO THE STRONG-CAMPBELL INTEREST INVENTORY HAVE BEEN ANALYZED ON THREE SETS OF SCALES, ALL OF WHICH ARE RELATED. SUMMARIZED BELOW ARE YOUR SCORES ON EACH THEME SCALE, THE BASIC INTEREST SCALES RELATED TO THAT THEME, AND THE OCCUPATIONAL SCALES RELATED TO BOTH THE BASIC INTEREST AND GENERAL THEME AREAS. ORGANIZING ALL OF YOUR SCORES IN THIS MANNER HELPS YOU TO CLEARLY SEE YOUR STRONGEST AND WEAKEST AREAS OF INTEREST, AND GIVES YOU AN INDICATION OF WHETHER OR NOT YOU WOULD LIKELY FIND A WORK AREA TO BE PARTICULARLY SATISFYING.

THE F OR M AFTER EACH OCCUPATIONAL SCALE INDICATES THE SEX OF THE GROUP USED FOR DEVELOPMENT OF THAT SCALE. THE ONE TO THREE LETTER CODE PRECEDING THE NAME OF EACH OCCUPATIONAL SCALE INDICATES THE FIRST LETTER OF THE GENERAL OCCUPATIONAL THEMES TO WHICH EACH SCALE IS MOST CLOSELY RELATED.

REMEMBER, MOST ADULTS HAVE SCORES IN THE AVERAGE RANGE, 43-57, ON EACH OF THE SIX THEME SCALES AND TWENTY-THREE BASIC INTEREST SCALE. HOWEVER, ON THE OCCUPATIONAL SCALES, SCORES BETWEEN 26 AND 44 ARE AVERAGE FOR THE GENERAL POPULATION, WHILE SCORES OF 45 OR MORE INDICATE A FAIRLY HIGH SIMILARITY OF INTERESTS WITH MOST OF THE WORKERS IN THAT PARTICULAR OCCUPATION.

I. 66 A-THEME ----- (ARTISTIC) -----

BASIC AREA SCALES	CODE	OCCUP. SCALES	
73 MUSIC/DRAMA	53 A	MUSICIAN	F
64 ART	49 ARI	ARCHITECT	M
60 WRITING	48 AS	ENGLISH TEACHER	M
	46 A	LIBRARIAN	M
	43 AE	ADVERTISING EXEC	M
	43 A	ENTERTAINER	F
	43 A	MUSICIAN	M
	40 A	REPORTER	F
	40 A	ART TEACHER	F
	40 A	PHOTOGRAPHER	M
	39 A	ARTIST	M
	39 A	LIBRARIAN	F
	38 AS	ENGLISH TEACHER	F
	38 A	REPORTER	M
	33 AE	INT. DECORATOR	M
	31 A	LANGUAGE TEACHER	F
	30 A	ADVERTISING EXEC	F
	30 AE	INT. DECORATOR	F
	28 A	ARTIST	F

II. 66 R-THEME ----- (REALISTIC) -----

BASIC AREA SCALES	CODE	OCCUP. SCALES	
67 NATURE	49 RI	REGISTERED NURSE	M
64 MECHANICAL	47 RIA	OCCUP. THERAPIST	F
62 AGRICULTURE	47 RIC	CARTOGRAPHER	M
62 MILITARY ACTVS.	44 REC	DIETITIAN	M
48 ADVENTURE	43 RI	X-RAY TECHNICIAN	F
	42 RIE	AIR FORCE OFF.	M
	42 RES	POLICE OFFICER	M
	40 RI	MERCH MARINE OFF	M
	40 RE	ARMY OFFICER	F
	40 RI	FORESTER	M
	34 RIC	ARMY OFFICER	M
	34 RI	NAVY OFFICER	M
	28 RSE	HWY. PATROL OFF.	M
	26 RS	PHYS ED. TEACHER	F
	25 R	SKILLED CRAFTS	M
	20 RI	VETERINARIAN	M
	17 RC	INSTRUM ASSEMBL.	F
	14 RC	FARMER	M
	12 RCE	VOC AGRIC. TCHR.	M

189 III. 59 I-THEME ----- (INVESTIGATIVE) -----

BASIC AREA SCALES	CODE	OCCUP. SCALES	
63 SCIENCE	56 IRS	MATH-SCI. TEACH.	M
59 MEDICAL SERVICE	53 IS	SPEECH PATHOL.	M
54 MEDICAL SCIENCE	52 IAS	PSYCHOLOGIST	M

IV. 57 S-THEME ----- (SOCIAL) -----

BASIC AREA SCALES	CODE	OCCUP. SCALES	
63 DOMESTIC ARTS	58 S	SOCIAL WORKER	F
60 RELIGIOUS ACTVS.	54 S	PRIEST	M
59 SOCIAL SERVICE	53 SEC	GUIDANCE COUNS.	F

47 MATHEMATICS

52	IRS	PHYS. THERAPIST	F
50	IC	DIETITIAN	F
48	IR	ENGINEER	M
48	IRS	PHYSICIAN	M
48	IR	DENTIST	F
46	IA	COLLEGE PROF.	M
46	IRC	COMPUTER PROGR.	M
46	IRC	MEDICAL TECH.	M
43	IR	DENTAL HYGIENIST	F
42	IRC	OPTOMETRIST	M
42	IR	DENTIST	M
41	IR	PHARMACIST	F
41	I	SOCIAL SCIENTIST	M
40	IR	MEDICAL TECH.	F
40	IR	ENGINEER	F
40	IR	PHYS. SCIENTIST	M
40	IA	COLLEGE PROF.	F
37	I	BIOLOGIST	M
35	I	MATHEMATICIAN	M
33	IAS	PSYCHOLOGIST	F
33	IS	SPEECH PATHOL.	F
33	I	PHYSICIAN	F
32	I	VETERINARIAN	F
32	IRC	COMPUTER PROGR.	F
30	I	OPTOMETRIST	F
29	ICR	MATH-SCI. TEACH.	F
27	IA	LANGUAGE INTERPR	F
27	IR	CHEMIST	F
18	I	PHYSICIST	F
15	I	MATHEMATICIAN	F

46 ATHLETICS

45 TEACHING

53	S	SOCIAL WORKER	M
50	SCE	PUBLIC ADMINIS.	M
46	SEC	SOC. SCI TEACHER	F
45	SIR	PHYS. THERAPIST	M
44	SIE	MINISTER	M
43	SI	REGISTERED NURSE	F
41	S	CHRISTIAN ED DIR	F
41	SE	YMCA STAFF	F
40	SER	RECREATION LEAD.	F
40	SCE	GUIDANCE COUNS.	M
39	SEA	ELFH. TEACHER	M
39	SC	ELFH. TEACHER	F
38	SCE	SC100L SUPEROT.	M
37	SEC	PERSONNEL DIR.	M
37	SRC	LIC. PRAC. NURSE	M
33	SEC	RECREATION LEAD.	M
33	SEC	SOC. SCI TEACHER	M

V. 48 E-THEME ----- (ENTERPRISING) -----

BASIC AREA SCALES

CODE OCCUP. SCALES

69	LAW/POLITICS	48	ESR	CHIROPRACTOR	M
67	PUBLIC SPEAKING	45	E	LAWYER	M
54	SALES	44	ESA	FLIGHT ATTENDANT	F
47	BUS. MANAGEMENT	43	E	LAWYER	F
42	MERCHANDISING	41	ES	CHAM. OF COMM.	M
		40	ESC	HOME ECON. TCHR.	F
		40	E	LIFE INS. AGENT	F
		31	ECS	CREDIT MANAGER	M
		30	EC	BUYER	F
		30	ES	LIFE INS. AGENT	M
		28	ESC	DEPT. STORE MGR.	M
		28	EIC	PHARMACIST	M
		27	EI	INVESTM FUND MGR	M

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VI. 47 C-THEME ----- (CONVENTIONAL) -----

BASIC AREA SCALES

CODE OCCUP. SCALES

51	OFFICE PRACTICES	39	CSE	EXFC HOUSEKEEPER	F
		38	CRI	LIC. PRAC. NURSE	F
		31	CR	DENTAL ASSISTANT	F
		31	CE	DEPT STORE SALES	F
		30	C	SECRETARY	F
		29	CES	BUSINESS ED TCHR	M
		25	CE	BANKER	F
		24	CRE	BEAUTICIAN	F
		23	C	ACCOUNTANT	F
		21	CE	CREDIT MANAGER	F
		18	CE	BANKER	M
		15	CE	BUSINESS TCHR	F
		-4	CE	ACCOUNTANT	M

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27 EI COMPUTER SALES M
 23 ES SALES MANAGER M
 21 ECS FUNERAL DIRECTOR M
 20 ERC PURCHASING AGENT M
 14 ECS BUYER M
 10 ECR REALTOR M
 5 ERC AGRIBUSINESS MGR M

* * * * *

THE TABLE BELOW INDICATES THE PERCENTAGES OF YOUR LIKE (LP), INDIFFERENT (IP), AND DISLIKE (DP) RESPONSES IN EACH OF THE SEVEN SECTIONS OF THE INVENTORY. FOR EXAMPLE, YOUR LP VALUE FOR THE OCCUPATIONS SECTION SHOWS WHAT PERCENTAGE OF THE OCCUPATION ITEMS YOU MARKED AS LIKING.

THE TOTAL RESPONSES AND INFREQUENT RESPONSES TO THE RIGHT OF THE TABLE ARE CHECKS TO MAKE CERTAIN THAT THE ANSWER SHEET WAS COMPLETED AND PROCESSED CORRECTLY. THE TOTAL RESPONSE INDEX SHOWS HOW MANY ANSWER MARKS THE COMPUTER READ FROM YOUR ANSWER SHEET. THIS NUMBER SHOULD BE CLOSE TO 325, SINCE THERE ARE 325 ITEMS ON THE ANSWER SHEET. UP TO TWENTY ITEMS CAN BE OMITTED WITHOUT SIGNIFICANTLY AFFECTING THE RESULTS. THE INFREQUENT RESPONSES INDEX SHOWS THE NUMBER OF RESPONSES YOU GAVE WHICH ARE ATYPICAL COMPARED TO THE WAY MOST PEOPLE RESPOND. ALMOST EVERYONE SCORES ZERO OR HIGHER. A NEGATIVE SCORE MAY INDICATE A RANDOM MARKING OF RESPONSES OR CONFUSION IN COMPLETING THE ANSWER SHEET. THE AOR AND IE SCORES ARE EXPLAINED BELOW.

	RESPONSE PERCENTAGES			
	LP	IP	DP	
I. OCCUPATIONS	61	10	29	TOTAL RESPONSES = 325
II. SCHOOL SUBJECTS	86	3	11	INFREQUENT RESPONSES = 0
III. ACTIVITIES	67	8	25	AOR = 68
IV. AMUSEMENTS	64	10	26	IE = 33
V. TYPES OF PEOPLE	75	8	17	
VI. PREFERENCES	33	17	50	
VII. CHARACTERISTICS	64	14	21	

YOUR SCORE ON THE ACADEMIC INTEREST SCALE (AOR) INDICATES A SIMILARITY OF YOUR INTERESTS WITH PEOPLE WHO GO TO COLLEGE AND OBTAIN AN ADVANCED DEGREE BEYOND THEIR BACCALAUREATE DEGREE, SUCH AS DOCTORS, SCIENTISTS, AND PROFESSORS.

YOUR LOW SCORE ON THE OCCUPATIONAL INTROVERSION-EXTROVERSION (IE) SCALE INDICATES THAT YOU PREFER WORKING WITH PEOPLE TO WORKING WITH THINGS. PEOPLE IN SALES AND SOCIAL-SERVICE OCCUPATIONS SCORE ABOUT THE SAME AS YOU, WHILE PEOPLE WHO LIKE TO WORK ALONE HAVE HIGH SCORES.

INSTRUCTIONS:

3/25/80

In order to better plan our work with you, we would like to know about your everyday activities and hobbies. On this page, Activities of Daily Living, please check one column for each activity.

On the next page, Leisure Time Activities, check one column indicating how often you engage in each activity and check column 4 if you would like to be doing more of the particular activity.

ACTIVITIES OF DAILY LIVING

	1 am not doing	2 am doing some	3 am doing regularly	4 does not apply
Help with household chores	—	✓	—	—
Visit friends	—	✓	—	—
Visit relatives	—	✓	—	—
Entertain friends at home	✓	—	—	—
Dress and take care of myself	—	—	✓	—
Help with the family budgeting	—	✓	—	—
Remember to do important things on time	—	✓	—	—
Get along with family members	—	✓	—	—
Go to parties and other social activities	—	✓	—	—
Get along with neighbors	—	✓	—	—
Help with family shopping	✓	—	—	—
Help in the care and training of children	—	✓	—	—
Go to church	—	—	✓	—
Take up hobbies	—	✓	—	—
Work	—	—	✓	—
Support the family	—	—	✓	—

LEISURE TIME ACTIVITIES

	1 frequently	2 sometimes	3 practically never	0 does not apply	4 <u>would like to do more of this</u>
Work in and around house . . .	—	—	✓	—	✓
Work in garden or yard . . .	—	—	✓	—	✓
Work on some hobby	—	—	✓	—	✓
Listen to the radio	✓	—	—	—	—
Watch television	—	—	✓	—	—
Write letters.	—	✓	—	—	✓
Go to the movies	—	✓	—	—	✓
Attend lectures, theater . . .	—	✓	—	—	✓
Attend club, lodge, other meetings	—	—	✓	—	—
Shop	—	—	✓	—	✓
Take part in community or church work	—	✓	—	—	✓
Bowl or other sports	—	✓	—	—	✓
Play cards or other table games	—	—	✓	—	—
Take rides	—	✓	—	—	✓
Visit friends	—	✓	—	—	✓
Entertain friends	—	—	✓	—	✓
Sew, crochet, or ^{knit} (^{knit} ^{knit} hook)	—	✓	—	—	✓
Read	—	—	✓	—	✓
Go to the library	—	—	✓	—	✓
Just sit and think	✓	—	—	—	✓
Take courses at home	—	—	✓	—	—
Go to school	—	—	✓	—	✓
Other (what?)	—	—	—	—	—
TM (meditation)	✓	—	—	—	✓

Client's name _____

Date scored

5/6/80

SUBSCORES:

Somatization	1.42-
Obsessive - Compulsive	2.10-
Interpersonal Sensitivity	2.22-
Depression	1.85-
Anxiety	2.10-
Hostility	1.50-
Phobic Anxiety	2.14-
Paranoid Ideation	2.33-
Psychoticism	2.00-

GLOBAL SCORES:

Global Severity Index	1.92-
Positive Symptom Total	83-
Posi' : Symptom Distress Index	2.08

INSTRUCTIONS

Below is a list of problems and complaints that people sometimes have. Read each carefully, and select one of the numbered descriptors that best describes HOW MUCH DISCOMFORT THAT PROBLEM HAS CAUSED YOU DURING THE PAST WEEK INCLUDING TODAY. Place that number in the open block to the right of the problem. Do not skip items, and print your number clearly. If you change your mind, erase your first number completely. Read the example below before beginning, and if you have any questions please ask the technician.

<u>EXAMPLE</u>		<u>Descriptors</u>			<u>Descriptors</u>
HOW MUCH WERE YOU DISTRESSED		0 Not at all	HOW MUCH WERE YOU DISTRESSED		0 Not at all
BY:		1 A little bit	BY:		1 A little bit
		2 Moderately			2 Moderately
		3 Quite a bit			3 Quite a bit
		4 Extremely			4 Extremely
<u>EX.</u> Body Aches	<u>Ans.</u> <u>3</u>				
1. Headaches	<u>1</u>		18. Feeling that most people		
2. Nervousness or shaking inside . .	<u>2</u>		cannot be trusted	<u>0</u>	
3. Repeated unpleasant thoughts			19. Poor appetite	<u>0</u>	
that won't leave your mind . . .	<u>1</u>		20. Crying easily	<u>1</u>	
4. Faintness or dizziness	<u>1</u>		21. Feeling shy or uneasy with the		
5. Loss of sexual interest or			opposite sex	<u>2</u>	
pleasure	<u>2</u>		22. Feelings of being trapped or		
6. Feeling critical of others . . .	<u>2</u>		caught	<u>2</u>	
7. The idea that someone else can			23. Suddenly scared for no reason .	<u>1</u>	
control your thoughts	<u>3</u>		24. Temper outbursts that you could		
8. Feeling others are to blame for			not control	<u>2</u>	
most of your troubles	<u>1</u>		25. Feeling afraid to go out of your		
9. Trouble remembering things . . .	<u>2</u>		house alone	<u>3</u>	
10. Worried about sloppiness or			26. Blaming yourself for things . .	<u>3</u>	
carelessness	<u>2</u>		27. Pains in lower back	<u>2</u>	
11. Feeling easily annoyed or			28. Feeling blocked in getting		
irritated	<u>2</u>		things done	<u>1</u>	
12. Pains in heart or chest	<u>1</u>		29. Feeling lonely	<u>3</u>	
13. Feeling afraid in open spaces			30. Feeling blue	<u>3</u>	
or on the streets	<u>2</u>		31. Worrying too much about things.	<u>2</u>	
14. Feeling low in energy or			32. Feeling no interest in things .	<u>1</u>	
slowed down	<u>2</u>		33. Feeling fearful	<u>2</u>	
15. Thoughts of ending your life . .	<u>1</u>		34. Your feelings being easily hurt	<u>2</u>	
16. Hearing voices that other			35. Other people being aware of your		
people do not hear	<u>0</u>		private thoughts	<u>4</u>	
17. Trembling	<u>2</u>				

HOW MUCH WERE YOU DISTRESSED
BY:

Descriptors

- 0 Not at all
1 A little bit
2 Moderately
3 Quite a bit
4 Extremely

36. Feeling others do not understand you or are unsympathetic 4
37. Feeling that people are unfriendly or dislike you 1
38. Having to do things very slowly to insure correctness 3
39. Heart pounding or racing 3
40. Nausea or upset stomach 2
41. Feeling inferior to others . . . 1
42. Soreness of your muscles . . . 3
43. Feeling that you are watched or talked about by others 2
44. Trouble falling asleep 1
45. Having to check and doublecheck what you do 3
46. Difficulty making decisions. . . 2
47. Feeling afraid to travel on buses, subways, or trains 1
48. Trouble getting your breath . . 1
49. Hot or cold spells 1
50. Having to avoid certain things, places, or activities because they frighten you 2
51. Your mind going blank 2
52. Numbness or tingling in parts of your body 0
53. A lump in your throat 2
54. Feeling hopeless about the future 1
55. Trouble concentrating 2
56. Feeling weak in parts of your body 3
57. Feeling tense or keyed up . . . 2
58. Heavy feelings in your arms or legs 2

HOW MUCH WERE YOU DISTRESSED
BY:

Descriptors

- 0 Not at all
1 A little bit
2 Moderately
3 Quite a bit
4 Extremely

59. Thoughts of death or dying 2
60. Overeating 1
61. Feeling uneasy when people are watching or talking about you . . 4
62. Having thoughts that are not your own 1
63. Having urges to beat, injure or harm someone 2
64. Awakening in the early morning . . 3
65. Having to repeat the same actions such as touching, counting washing. . . . 3
66. Sleep that is restless or disturbed 3
67. Having urges to break or smash things 1
68. Having ideas or beliefs that others do not share 4
69. Feeling very self-conscious with others 2
70. Feeling uneasy in crowds, such as shopping or at a movie 3
71. Feeling everything is an effort . . 2
72. Spells of terror or panic 1
73. Feeling uncomfortable about eating or drinking in public. . . . 2
74. Getting into frequent arguments . . 2
75. Feeling nervous when you are left alone 3
76. Others not giving you proper credit for your achievements . . . 4
77. Feeling lonely even when you are with people 3
78. Feeling so restless you couldn't sit still 1
79. Feelings of worthlessness 1

HOW MUCH WERE YOU DISTRESSED BY:	<u>Descriptors</u> 0 Not at all 1 A little bit 2 Moderately 3 Quite a bit 4 Extremely	HOW MUCH WERE YOU DISTRESSED BY:	<u>Descriptors</u> 0 Not at all 1 A little bit 2 Moderately 3 Quite a bit 4 Extremely
80. The feeling that something bad is going to happen to you	<u>3</u>	86. Thoughts and images of a frightening nature	<u>4</u>
81. Shouting or throwing things	<u>0</u>	87. The idea that something serious is wrong with your body	<u>0</u>
82. Feeling afraid you will faint in public	<u>1</u>	88. Never feeling close to another person	<u>1</u>
83. Feeling that people will take advantage of you if you let them	<u>3</u>	89. Feelings of guilt	<u>2</u>
84. Having thoughts about sex that bother you a lot	<u>3</u>	90. The idea that something is wrong with your mind	<u>4</u>
85. The idea that you should be punished for your sins	<u>1</u>		

RUTGERS COMMUNITY MENTAL HEALTH CENTER:
CONTINUING CARE - INDIVIDUAL CLIENT INVENTORY

INSTRUCTIONS: This form is to be completed by the individual client. If there is not enough space to answer the questions, complete on page 4, taking care to begin with the number of the question being answered.

Name _____ Date 3/27/80 Sex M Age 25 Birthdate _____

Address _____ Telephone _____

With whom do you live? Self _____ Wife _____ Parents _____ Husband _____ Child(ren) _____ Friend(s) _____

SERV _____ Other (specify) "My mom"

Marital Status Married _____ How long? _____ Single ☒ Divorced _____ Date _____
Separated _____ Date _____
Widowed _____ Date _____

How many children do you have? 0 Give names and ages: _____ Age _____

_____, ____; _____, ____; _____, ____;
_____, ____; _____, ____; _____, ____;

Highest grade completed 12th grade Religion Catholic

What is the chief problem that brings you for help?

"There's so much ... Series of
mental breakdowns ... having
trouble adjusting ..."

Please rate the severity of your problem. CIRCLE ONLY ONE

No Problem Mildly Upsetting Moderately Severe Very Severe Unable To Function

What specific changes do you wish regarding your chief problem?

"free from my handicap
function/ cope w/ everyday situation
productive life & well-integrated"

Please list any helping agency or individual with whom you have had contact in the past six months. (Include Welfare, AA or Alanon, School or other counselors, family service agency, vocational service, clinic, hospital, et cetera.)

Welfare Club
Voc. Service
Princeton House 201
RMHC - After care

MEDICAL HISTORY

Page 2

Name of Family Doctor _____ Address _____
 _____ Telephone _____

Date and result of most recent physical exam: many times

Since Oct. - had routine physical - everything good
except:

Do you presently have any concerns about your physical health? If so, what are they?

neurological problem
blood pressure - high

Are you currently receiving treatment for any medical problems? If so, what?

not lately

Please list all medicines you take currently, including aspirin, sleeping pills, tranquilizers, etc. If drugs are prescription, please list who prescribed them.

Lithium Carbonate 1500 mg.
Stelazine 40 mg
Cocaine 4 mg
Dr. Van Horn
occasional valium
aspirin

Please indicate extent of your use of alcohol, caffeine-containing compounds (coffee, coke, and other sodas) and street drugs.

one glass of wine every 3 weeks
tobacco (1 pack / dy.)
soda (1 / dy.)
2 cups coffee (per day)
"don't do any drugs"

Are you allergic to any medications? If so, what? thiazine

Other allergies? get hives on back occasionally / anxiety

If you are a woman of child-bearing age, do you use any method of contraception? If so, what kind? _____

FAMILY DATA

Father's name _____

Living ☒ age 62 or deceased ☒ Your age at time of his death 11

occupation motor vehicle inspector racial/ethnic background Italian

any illnesses? heart disease / hypertension

Mother's name _____

Living ☒ age 62 or deceased _____ Your age at time of her death _____

occupation home maker racial/ethnic background Italian

any illnesses? ulcer / kidney disease

How many brothers and sisters do you have? 5 Give names and ages: Robert

Age 38; Joseph, 36; Hank, 33; John, 32;

Cheryl, 23; _____, _____; _____, _____.

Please list any illnesses of your brothers or sisters: _____

Bel - hypertensive / bad back
Je - sinus attacks / John - etc / Chav - hypertensive

Have any close family members or friends died? Please indicate for each:

Name _____ Relationship to you fatherDate of death Sept 26, 1966 Cause of death myocardial infarctionName _____ Relationship to you friendDate of death Dec. 24, 1978 Cause of death Cancer16 yrs. ago / friend / suicide

Has anyone in your family ever had the following? (Please include parents, grandparents, aunts, uncles, brothers, sisters, and children.)

1 yr. ago / friend / suicide

	Relationship	Date	Their age at that time	Did they have treatment?
Depression	<u>brother John / mother</u>	<u>after father's death</u>	<u>John - 18 yr. Mother - 50</u>	<u>yes</u> <u>yes</u>
Suicide	<u>no</u>			
Seizures				
Alcoholism	<u>Uncle</u>	<u>currently "a wreck"</u>	<u>going on for 15 yrs.</u>	<u>no - "beyond help"</u>
Psychosis - Nervous Breakdown	<u>no</u>			
Retardation	<u>no</u>			

JOB HISTORYAre you working now? (yes) Type of work: Stock personHow long at present job? 3 yrs Name and address of employer: _____Alvander - Pacific ParkDo you enjoy your work? _____ Very much ✓ Generally _____ Occasionally _____ Never _____13 yrs ago / friend / Hodgkinson disease

If you stopped working, when Aug '79 and why? driving club -
going to school /
How many jobs have you had in the past five years? 3

OTHER INFORMATION

How many moves have you made in the past five years? 2 Most recent move _____
around Dec. 1979

Have you been in trouble with the police? yes Have you been arrested? in custody no
a week
Do you have any legal charges pending now? no / dropped
Do you have a driver's license? yes How will you get to your appointments here? _____

Who are the most important people in your life now? my friend
+ my mom + my niece + nephews
What two people do you most want to be like? myself

See Page 5 for Previous Psychiatric Treatment.

PREVIOUS PSYCHIATRIC TREATMENT
(Begin with earliest date)

Page 5

Date or Your Age	Type (E.g., Inpatient or Outpatient; Individual, Group, Marital, Family)	Name of Hospital, Clinic or Therapist	Length of Time	Medication	How Helpful Was This Treatment?
Nov 23 1973	Inpatient	Carrier Clinic	1 mo.	?	mediocre
1976 ~~1975-1977~~	Inpatient (1976)	RMHC	1 wk.	Trilafon	it was good
1975-77	Outpatient { group indiv. family }	RMHC	2 yrs.	Trilafon	"
1978	Inpatient	Friend's Psychiatric Hosp. (Phila)	3 wks.	Trilafon Lithium Thorazine	hard to answer - mixed emotions
"	"	RMHC (after ↑)	2 wks.	Trilafon Lithium	poor
1980 ~~1979~~	"	Princeton House	5 wks.	Lithium Stelazine Cogentin	fair other "mashes"
~~1975~~ 1980	Outpatient	RMHC	for past 5 yrs.	Lithium Stelazine Cogentin	it's good

How do you think we can best help you at the present time?

"Through TEP work, individual / Chemotherapy
I bring response to my needs"

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